● Florida Assn. members flank Paul Lenchuk as he presents a "Concrete Products Manual" to Mrs. Evans.

● The citation Philip Paolella has given to E. W. Dienhart pays tribute to 20 years of service to NCMA.

● Here's what Lenn Redman saw in Mrs. Donald Anderson and Mrs. Carl Burnham, Canton Concrete Products.

● Dr. Joseph Kaplan, pipe in hand, and retiring NRMCA President John Roberts relax before Dr. Kaplan's talk.

APRIL 1958

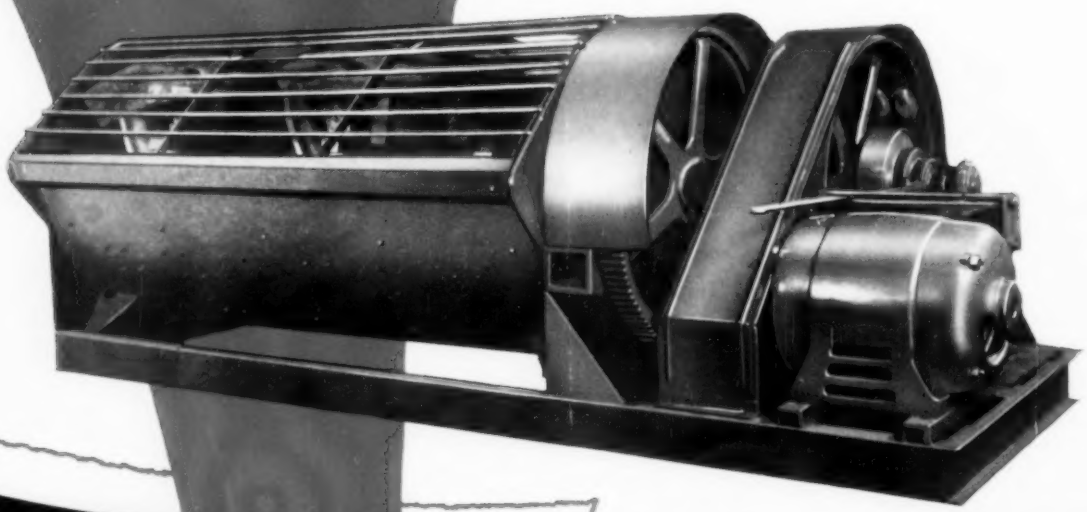
CONCRETE

For producers of precast and prestressed concrete products and ready mixed concrete

NRMCA and NCMA Hold Conventions in Chicago — See Reports Inside.

● One of the first questions incoming NCMA President Carroll Strohm, Jr., asked of his predecessor, Philip Paolella, left, was, "How does it feel to become a past president of the National Concrete Masonry Association?"

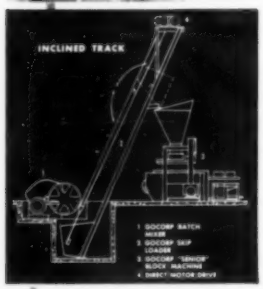
ALL MIXERS LOOK ALIKE



. . . . but check the PERFORMANCE!

PLUS GOCORP SKIP LOADERS TO DELIVER THE GOODS

Whether for transferring mixed concrete from the mixer to the main supply hopper on your block machine or for conveying dry material to an elevated mixer or bin, there is a GOCORP skip loader to match every GOCORP Mixer. Vertical or inclined track • 12 to 65 cubic feet capacity • Specials to solve your problem.



INCLINED SKIP INSTALLATION. Mixer is mounted below floor level for handy charging. Convenient for bagged cement too. Angle and length of tracks may be varied to fit your needs.

HERE'S WHY GOCORP OUT-PERFORMS THEM ALL

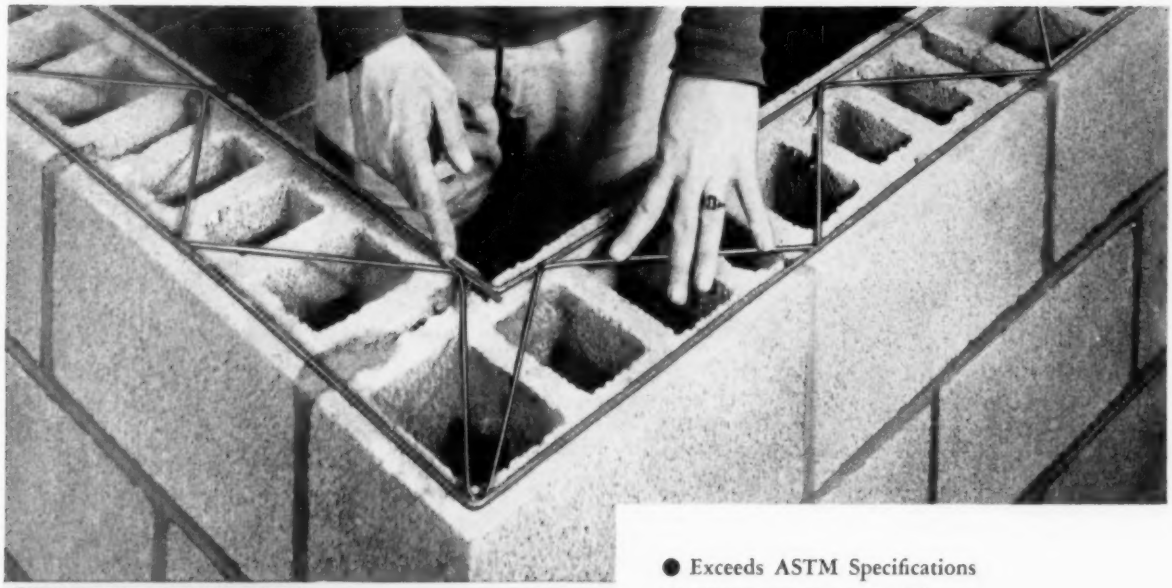
- **NI-HARD SECTIONAL LINERS** – Longer wearing, quicker to install.
- **NI-HARD RIBBON BLADES** – for a thorough faster mix – Last longer.
- **BEARINGS** – Extra oversize, self-aligning, anti-friction – standard on all GOCORP mixers.
- **NI-HARD DUST HUBS AND RINGS** – Better seal, longer wear.
- **WATER DISTRIBUTING MANIFOLD** – Quick, effective, uniform water distribution.
- **CUT STEEL GEARS** – Assures proper mesh – trouble free.
- **CLUTCH PULLEY** – Heavy duty, friction type, controlled from charging side.
- **DRUM CONTOUR** – Safer, reduces spillage when overloaded.
- **POWER** – Oversized motors on all models.
- **DRUM GRID GUARD** – Permits safe charging and complete visibility. Optional on smaller sizes.
- **AIR OPERATED DISCHARGE DOOR AND MIX-TIMER** – Standard equipment on 75 cu. ft. mixer, optional on smaller sizes.
- **GOCORP'S ENGINEERS** are also prepared to meet your special needs including left-hand drive and truck mounting.

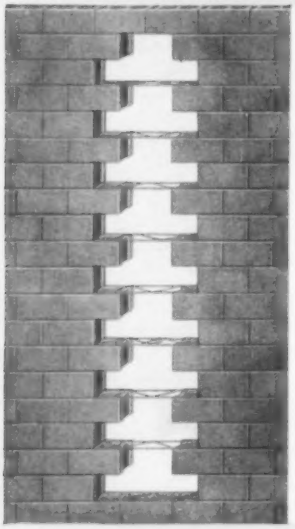
GOCORP MIXERS come in all sizes from 12 to 75 cubic feet. There is one to meet your requirements regardless of the size of your block machine or the aggregate used.

GOCORP
ADRIAN-MICH.

405 Grace Street Adrian, Michigan

Why DUR-O-WAL®?





Dur-O-waL is custom-fabricated to lay flat and tight in the mortar bed. Research tests demonstrate that "a wall with five courses of reinforcing is 260% stronger than non-reinforced masonry walls with Class B mortar and 245% stronger than walls constructed with Class A mortar." "Where strong mortars are used, the strength of the wall increases as the amount of steel increases." Dur-O-waL, reinforcing pioneer and recognized standard of quality, is preferred for its unexcelled performance.

*Truss type Standard Dur-O-waL has 33% more weight of high tensile steel per lineal foot.

**Standard Dur-O-waL, Class A Mortar every other course. 16"oc.

†Mortar Lock tests from independent research studies.

††Bond tests from independent research studies.

***Reduces shipping costs.

- Exceeds ASTM Specifications
- 33% more lbs. of steel*
- Increases wall strength 85%**
- Mechanical Bond Strengthens Mortar Lock 46%†
- Deformation 77% more effective††
- Packaging excellence assures handling ease Bundles clearly marked on each end in 10′ lengths
- Distributed everywhere from 8 strategically located manufacturing plants***

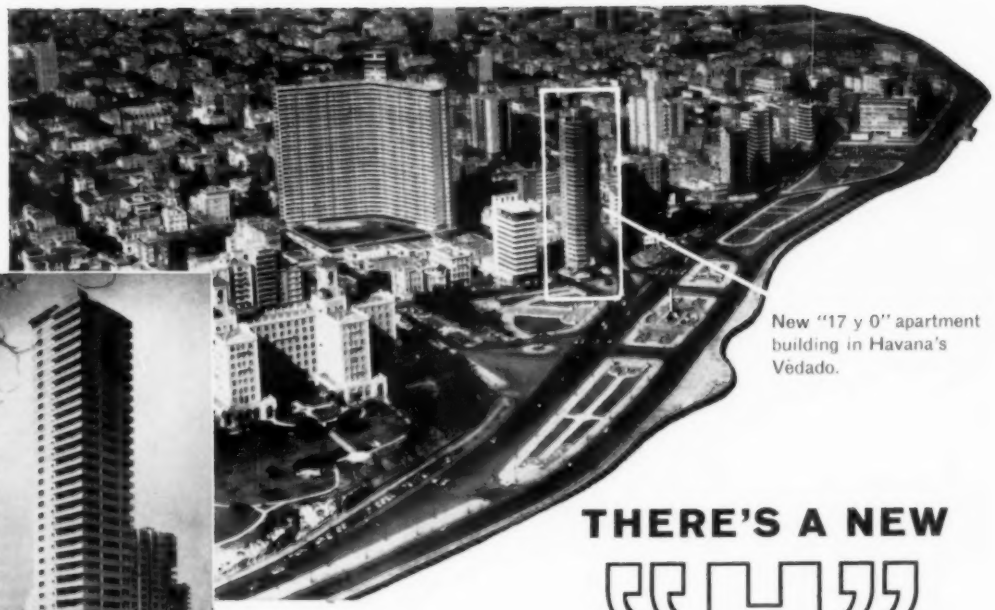
TRUSSED DESIGN
BUTT WELD
DEFORMED RODS

as a service to the building industry Dur-O-waL is happy to provide you with a fact file containing the findings of an independent research study on masonry wall reinforcement.

DUR-O-WAL

Rigid Backbone of Steel For Every Masonry Wall

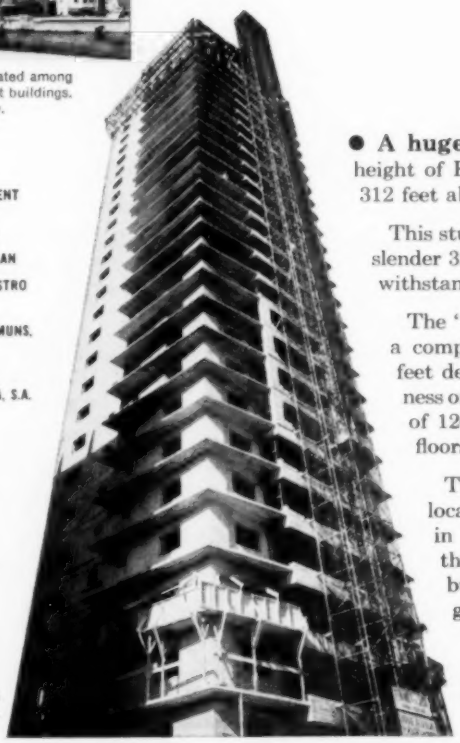
Dur-O-waL Div., Cedar Rapids Block Co., **CEDAR RAPIDS, IA.** Dur-O-waL Prod., Inc., Box 628, **SYRACUSE, N. Y.** Dur-O-waL Div., Frontier Mfg. Co., Box 49, **PHOENIX, ARIZ.** Dur-O-waL Prod., Inc., 4500 E. Lombard St., **BALTIMORE, MD.** Dur-O-waL of Ill., 119 N. River St., **AURORA, ILL.** Dur-O-waL Prod. of Ala., Inc., Box 5446, **BIRMINGHAM, ALA.** Dur-O-waL of Colorado, 29th and Court St., **PUEBLO, COLORADO** Dur-O-waL Inc., 165 Utah Street, **TOLEDO, OHIO**



New "17 y 0" apartment building in Havana's Vedado.

Completed building seen above, situated among other new apartment and government buildings. (At right) dramatic construction view.

THERE'S A NEW "H" IN HAVANA



● **A huge "H" beam** extends upward the entire height of Havana's newest luxury apartment building, 312 feet above sidewalk level.

This sturdy diaphragm forms the "backbone" of the slender 32-story structure and is carefully designed to withstand wind stresses due to hurricanes.

The "H" beam is built of reinforced concrete with a compressive strength of 5000 psi. Measuring 55 feet deep, with 60-ft. flanges and a variable thickness of web, it is constructed to resist wind pressures of 120 mph at lower levels to 180 mph on upper floors.

The building, known as "17 y 0"—its street location—towers above historic Malecón Drive in the famous Vedado section. It exemplifies the dramatic beauty of the many new modern buildings designed in concrete along Havana's growing skyline.

A total of 11,000 bbls. of El Morro Cement, produced by La Compañia Cubana de Cemento Portland, Lone Star subsidiary, were used in the project.

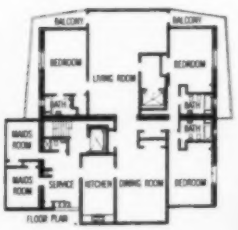
"17 y 0" COOPERATIVE APARTMENT BUILDING
Vedado, Havana, Cuba

Owner: **GUILLERMO SOMEILLAN**

Architect: **FERNANDO R. de CASTRO**

Engineers:
J. A. VILA, B. DESCHAPELLES, A. MUNS, R. GUTIÉRREZ

Contractor:
CONSTRUCTORA METROPOLITANA, S.A.



Huge reinforced concrete "H" beam forms the backbone of the structure.

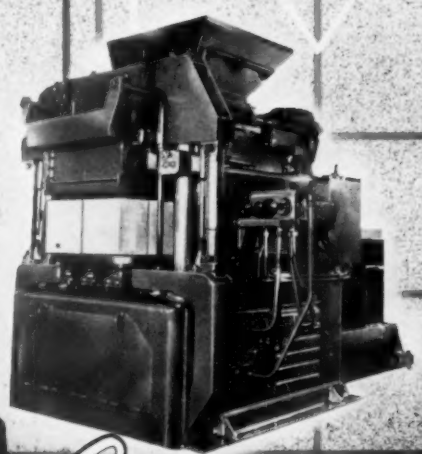
LONE STAR CEMENTS COVER THE ENTIRE CONSTRUCTION FIELD

LONE STAR CEMENT CORPORATION

Offices: ABILENE, TEX. • ALBANY, N. Y. • BETHLEHEM, PA.
BIRMINGHAM • BOSTON • CHICAGO • DALLAS • HOUSTON
INDIANAPOLIS • KANSAS CITY, MO. • LAKE CHARLES, LA. • NEW ORLEANS
NEW YORK • NORFOLK • RICHMOND • SEATTLE • WASHINGTON, D. C.

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 21 MODERN MILLS, 48,900,000 BARRELS ANNUAL CAPACITY

BUILD



YOUR PROFITS
WITH A
Columbia 12" HIGH

Your own regular customers, plus many new ones, can be a source of much added profits for you when you own a COLUMBIA 12"-HIGH!

Architects, NCMA, block plant manufacturers and block plant operators working together have created a wide variety of new faces and shapes in concrete masonry units for which there is an ever increasing demand.

You can cash in on the demand for these new units with your old customers and build many new accounts by the installation of a COLUMBIA 12"-HIGH . . . the *one block machine that successfully makes all three:* 4"-high, 8"-high, as well as 12" high units in a wide variety of shapes and sizes—*Roman brick, Norman tile, silo staves, water meter boxes, flue liners, partition block, hexagonal drain tile, prestressed units, fence posts, specially designed face blocks, and other special shapes.*

THE COLUMBIA 12"-HIGH IS A PRODUCTION GIANT . . . A ONE-MACHINE BLOCK PLANT. Operating at 4 to 6 cycles the machine will produce more than 1000 8" x 8" x 16" blocks per hour on a continuing basis, and at a faster rate with half heights.

The electronically-controlled, fully automatic 12"-HIGH is powered by positive hydraulic action. Super-fast agitation with electronic height and density control, assures uniform delivery of the aggregate to the molds to give continuous production of quality block.

When you consider four important factors the 12"-HIGH gives you the lowest per-block production costs of any machine on the market today:

- **lower initial cost**
- **lower maintenance costs**
- **less depreciation**
- **higher production**

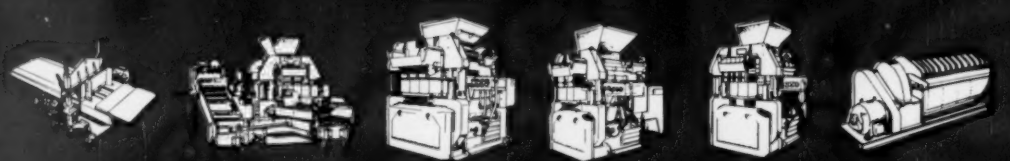
In addition, the 12"-HIGH is extremely compact, occupying only a minimum of plant space, giving the *highest production* per square foot of plant space occupied. It will *out produce* any machine regardless of price!

IT IS EASY TO OWN A COLUMBIA 12"-HIGH. The low original price represents an easily amortized capital investment. Flexible *"pay-as-you-depreciate"* plan makes you the owner of this profitable piece of concrete manufacturing equipment on an *easy-to-pay* basis.

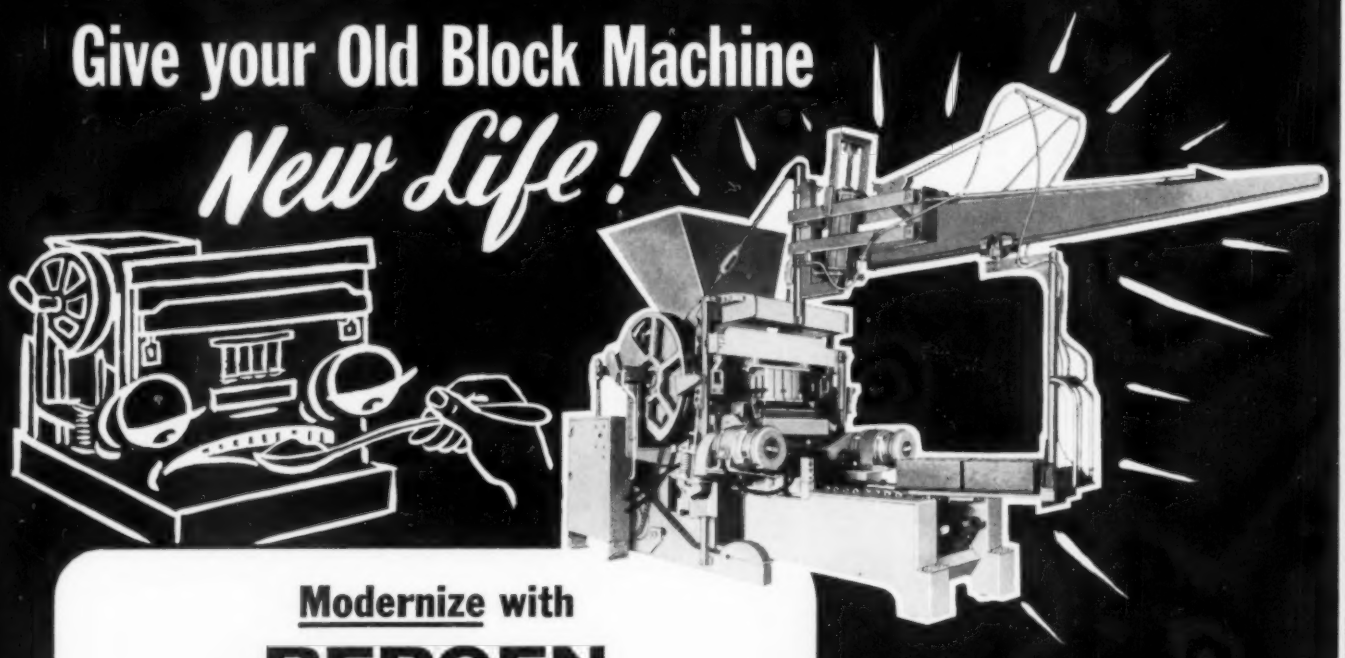
There is a Columbia representative in your area . . . for information call, write, wire

Columbia **MACHINE** Home Office: 107 S. Grand, Vancouver, Wash.

Factory Branch and Warehouse: MATTOON, ILLINOIS Parts Depot and Office: BURBANK, CALIFORNIA



Give your Old Block Machine *New Life!*



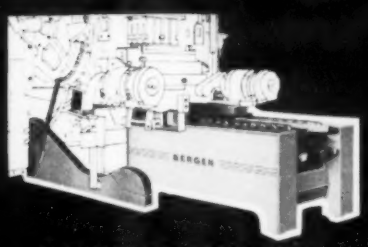
Modernize with

BERGEN

High-Production Auxiliary Equipment

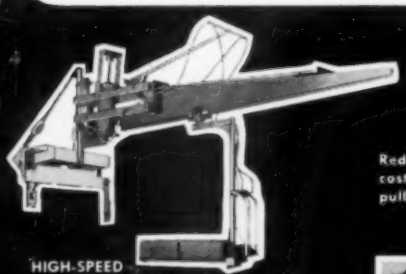
Next best thing to a new Bergen TRI-MATIC, is your present block machine stepped up in performance with modern, high-production Bergen auxiliary equipment. You eliminate operating troubles, slow production, hand labor. Instead, you get high-speed, dependable, automatically-controlled production of more blocks per hour, at lower cost per block.

Learn how easily and economically you can get new profits out of your old machine. Write or 'phone us, giving details of your present machine . . . make, age, condition.



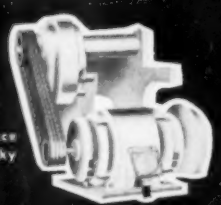
AUTOMATIC FRONT PALLET FEEDER

Replaces chain conveyor assembly and hand labor; provides smooth automatic, high-speed block handling.



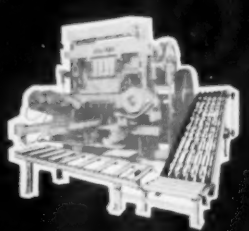
HIGH-SPEED OFF-BEARING HOIST

Eliminates hand lifting; finger-tip control reduces operator fatigue, speeds up off-bearing.



TORQUE ARM REDUCER DRIVE

Reduces wear and maintenance costs. Eliminates heavy, bulky pulley drive.

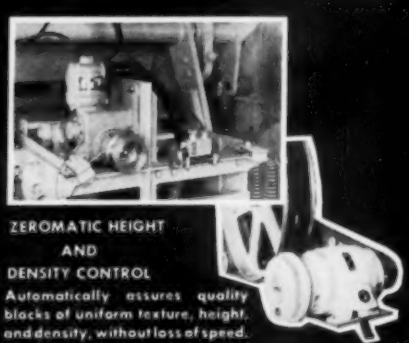


SIDE PALLET FEEDER

An efficient, economical pallet feeder; cuts hand labor in half.

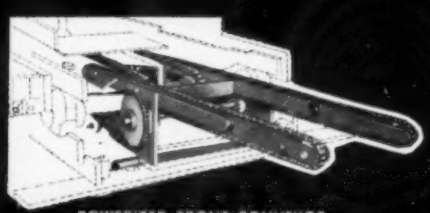
ALSO

- HIGH SPEED CAMS
- MODERN POWER CONTROL PANELS
- MAGNETIC MOTOR BRAKES
- LeSUEUR MOISTURE METER for automatic Batch Mixing moisture control



ZEROMATIC HEIGHT AND DENSITY CONTROL

Automatically assures quality blocks of uniform texture, height, and density, without loss of speed.



POWERIZED FRONT CONVEYOR

Replaces your front roller conveyor; permits maximum machine speed; eliminates block breakage.

BERGEN MACHINE and TOOL CO., Inc.
NUTLEY, NEW JERSEY

Telephone:
Nutley (N.J.) 2-7300
Cable:
"BERGENCO" (Nutley, N.J.)

Bergen manufactures a complete line of Block Plant Equipment—Batch Mixers, Skip Hoists, Off-bearing Hoists, Height and Density Control Panels, Mold Repair Tables, and a full line of mold attachments and replacement parts.

ESTABLISHED 1904

Published Monthly By

CONCRETE
Publishing Corporation
400 W. Madison St.
Chicago 6, Ill.
Central 6-8822

DONALD T. PAPINEAU
Publisher

DOUGLAS LEE
Editor

BERNARD FRANKEL
Advertising Manager

R. L. DAUM
Production Manager

G. E. LEICHT
Circulation Manager

ADVERTISING SALES REPRESENTATIVES

PORTER WYLIE & COMPANY
114 East 13th Street
New York 3, N. Y.
Gramercy 5-3581

CRAWFORD L. ELDER
2500 El Venado Drive
La Puente, California
Oxford 4-4116

CLARENCE L. MORTON
294 Washington Street
Boston 8, Massachusetts
Liberty 2-8538

SUBSCRIPTION PRICE: $6.00 for one year, $11.00 for two years, post-paid anywhere in the world. No subscriptions accepted for longer than two years. Single copies, 50 cents each.

Accepted as Controlled Circulation Publication at Mendota, Illinois

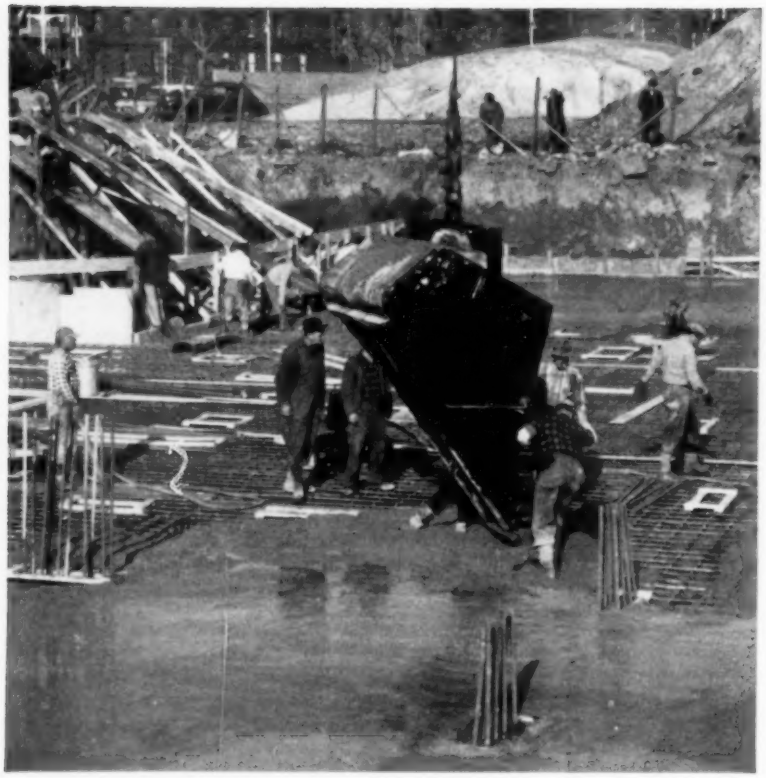
CONCRETE

For producers of precast and prestressed concrete products and ready mixed concrete

VOL. 66, NO. 4 **April 1958**

FEATURES FOR THIS MONTH

DEPARTMENTS



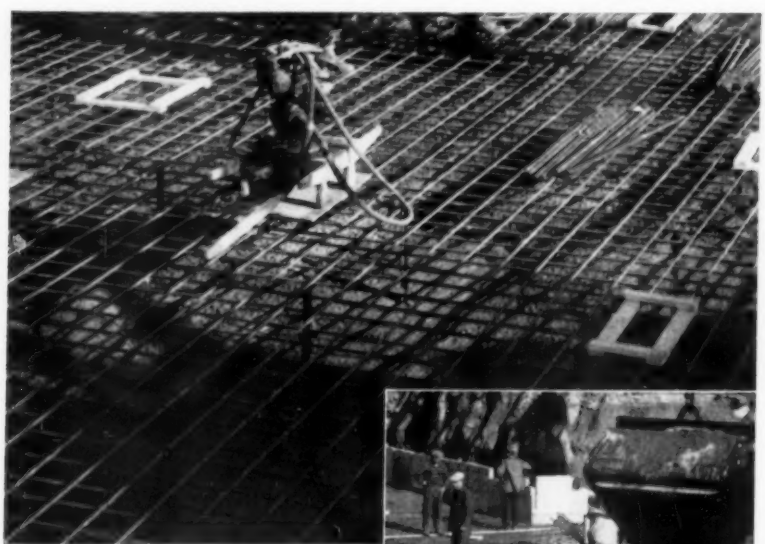
CHUTES AND BUCKET OPERATE simultaneously, pacing fast-working concrete placement crew on Senator Robert F. Wagner, Sr., Houses project in Manhattan. Starrett & Van Vleck, architects; Reginald E. Marsh, associate. Seelye, Stevenson, Value & Knecht, consulting engineers; George F. Driscoll Co. and Moccia Construction Co., joint-venture contractors. All are New York City firms.

How to pour 1526 cu. yd. pressure slab in 6½ hours

HERE'S HOW one shift poured a 5' thick, 8,200 sq. ft. concrete pressure slab, and went home 90 minutes early.

Problem of Manhattan traffic was solved by scheduling pour on a Saturday which also assured contractor of getting concrete supplier's entire output. Casting began at 7:00 a.m. at two diagonally opposite corners of the "T"-shaped 64' x144' foundation where two batteries of 4 wood chutes permitted several truck mixers to unload simultaneously at each location. Two cranes with 2½ yd. lay-down buckets were spotted on corners opposite the chutes to handle additional transit-mix trucks. By late morning, work had progressed beyond reach of the chutes. The cranes continued closing in on the middle. They completed the 1526 cu. yd. pour at 1:30 p.m.—just 6½ hours after the first truck mixer unloaded.

The 30-man crew placed concrete at a fast 235 cu. yds. per hour clip with evenly paced delivery of properly mixed material by a fleet of 24 truck mixers. The only way to handle a big, continuous pour of this nature is to use truck mixers of certified design, capacity, mixing speed and water control accuracy.



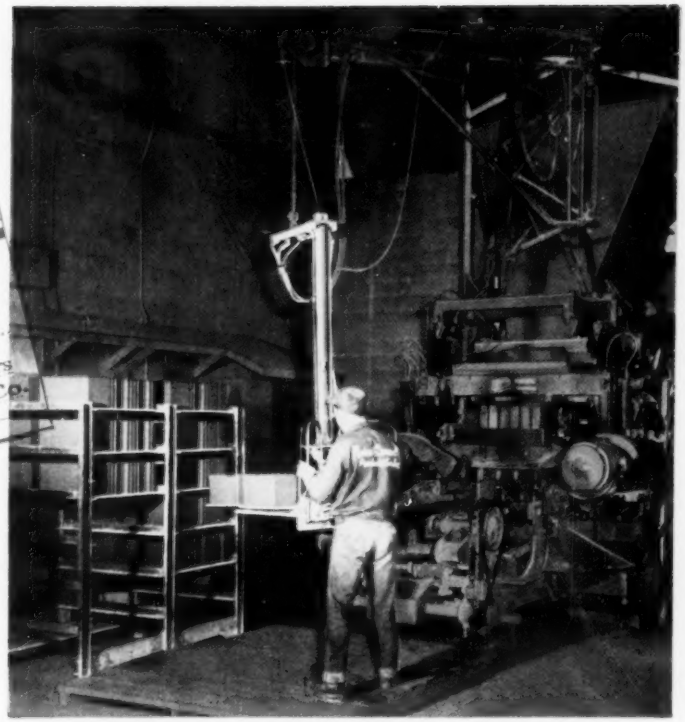
UPRIGHT CHAIRS, set on 3" concrete mud mat, support top reinforcing for pressure slab. Placed on 6' centers, vertical chairs were held securely in place against bottom reinforcing by tie-wires.

BUCKET is brought close to reinforcing steel before discharge to reduce impact. Wood templates locate column dowels. ►

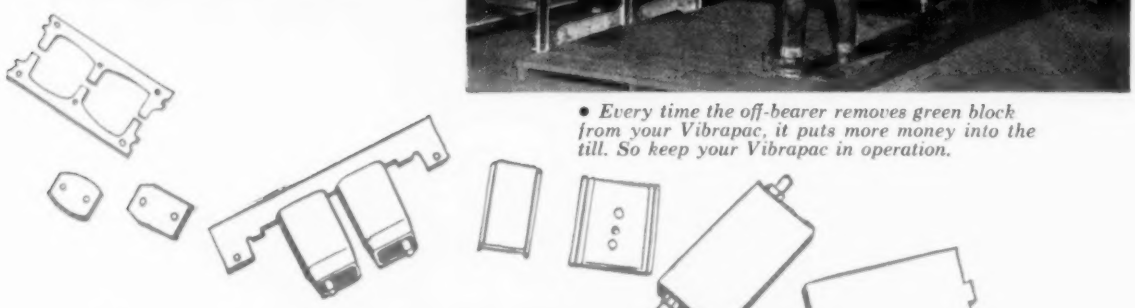
You have a right to insist on this Rating Plate. It certifies compliance with the high industry standards maintained for your protection by the Truck Mixer Manufacturers Bureau.

BLAW-KNOX CONSTRUCTION EQUIPMENT DIV.
Mattoon, Ill.
CHAIN BELT COMPANY
Milwaukee, Wis.
CHALLENGE MANUFACTURING CO.
Los Angeles, Calif.
CONCRETE TRANSPORT MIXER CO.
St. Louis, Mo.
CONSTRUCTION MACHINERY CO.
Waterloo, Iowa
THE JAEGER MACHINE COMPANY
Columbus, Ohio
THE T. L. SMITH COMPANY
Milwaukee, Wis.
WESTINGHOUSE TRANSIT MIXER DIV.
Indianapolis, Ind.
WHITEMAN MANUFACTURING CO.
Pacoima, Calif.
WILLARD CONCRETE MACHINERY CO., LTD.
Lynwood, Calif.
WORTHINGTON CORPORATION
Plainfield, N. J.

Insurance *Against* DOWNTIME!



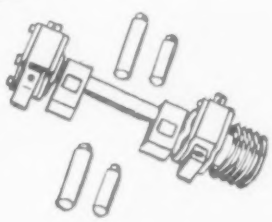
• *Every time the off-bearer removes green block from your Vibrapac, it puts more money into the till. So keep your Vibrapac in operation.*



Fire insurance? Of course you carry fire insurance. You want to be protected against sudden losses. Well, you'll find it's just as important to insure against possible downtime of your block machine.

If your block plant carries a substantial parts inventory, you will always have parts instantly available when replacements are necessary. The parts inventory serves as insurance against unnecessary downtime.

So play safe. Always carry a supply of Genuine Besser Parts for your Vibrapac machine. Remember, Genuine Besser Parts are precision-made in the Besser plant, by the same skilled workers and with the same equipment used in the manufacture of new Vibrapac machines.



BESSER Company

DEPT. 127, ALPENA, MICHIGAN, U. S. A.

Complete Equipment for Concrete Block Plants

BESSER PARTS STORES

ATLANTA
901 Sycamore
Decatur, Georgia
Phone:
DRake 3-5781

BUFFALO
116 Michigan Avenue
Buffalo, New York
Phone:
MOhawk 3990 & 6019

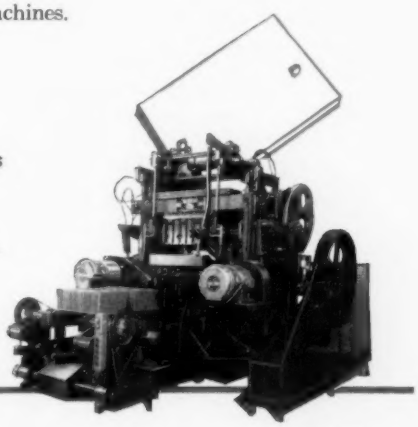
KANSAS CITY
1425 Murray St.
N. Kansas City, Mo.
Phone:
Victor 2-5261

LOS ANGELES
6100 Sepulveda Blvd.
Van Nuys, California
Phone:
STate 5-5457

NEWARK
140 Delancy Street
Newark, New Jersey
Phone:
Mitchell 2-1434

ALPENA
Besser Factory Store
Alpena, Michigan
Phone: 291

BESSER Genuine PARTS



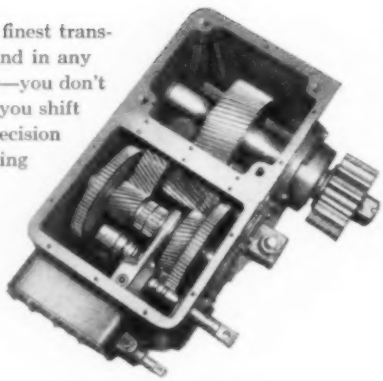
A8-162

NEAT TRICK...

if you can do it!

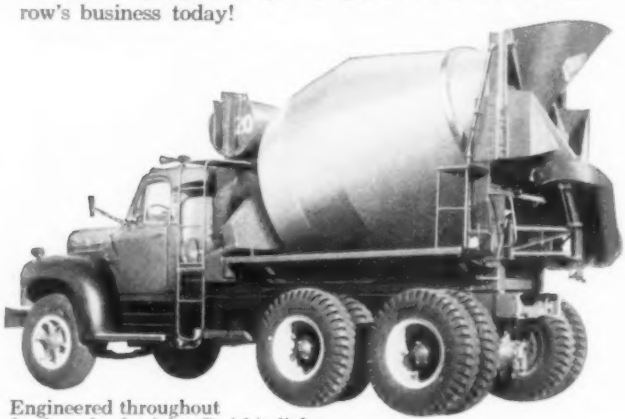
Ever try it when you were about this fellow's age . . . rubbing your stomach with one hand while moving the other up and down over your head? It's tough to control these *two different* hand motions *simultaneously*. It's tough too, keeping mixer drum speeds going *at just the right* speed for *inspection* type *mix*, while truck engine speeds vary with the travel demands put on it . . . but it's a neat trick SMITH *"can do"* for you! Multi speed transmissions in the mixer drive keep the drum rotating at just the right number of r.p.m.'s . . . whether you drive 30 m.p.h. or 50 m.p.h. . . . whether your length of haul is 5 miles or 20! . . . With a SMITH, you can depend on getting concrete mixed to the N.R.M.C.A., maximum-minimum, drum revolution limits.

Smith's "concrete factories on wheels" with multi speed transmission and patented T-shaped blades give absolute control over the mix . . . *double mix* all materials to produce high quality "inspection type" concrete needed on tomorrow's jobs. *And profit wise contractors* look to the Smith equipped ready mix operator to handle tomorrow's business today!



- In this, the finest transmission found in any truck mixer—you don't shift gears, you shift clutches. Precision manufacturing includes tolerances to one ten-thousandth of an inch.

- **LOW MAINTENANCE COST**
  Manten steel drums and patented T shaped mixing blades.
- **BIGGER PAYLOADS**
  Better weight distribution puts more weight forward
- **CHOICE OF SIZES**
  4 yd. thru 9 yd. mixers—up to 12½ yd. agitators, PTO or separate engine drive



Engineered throughout for less deadweight, Smith's light weight makes bigger payloads possible.

SMITH

Since 1900, the pioneer designer and foremost manufacturer of the world's finest mixers

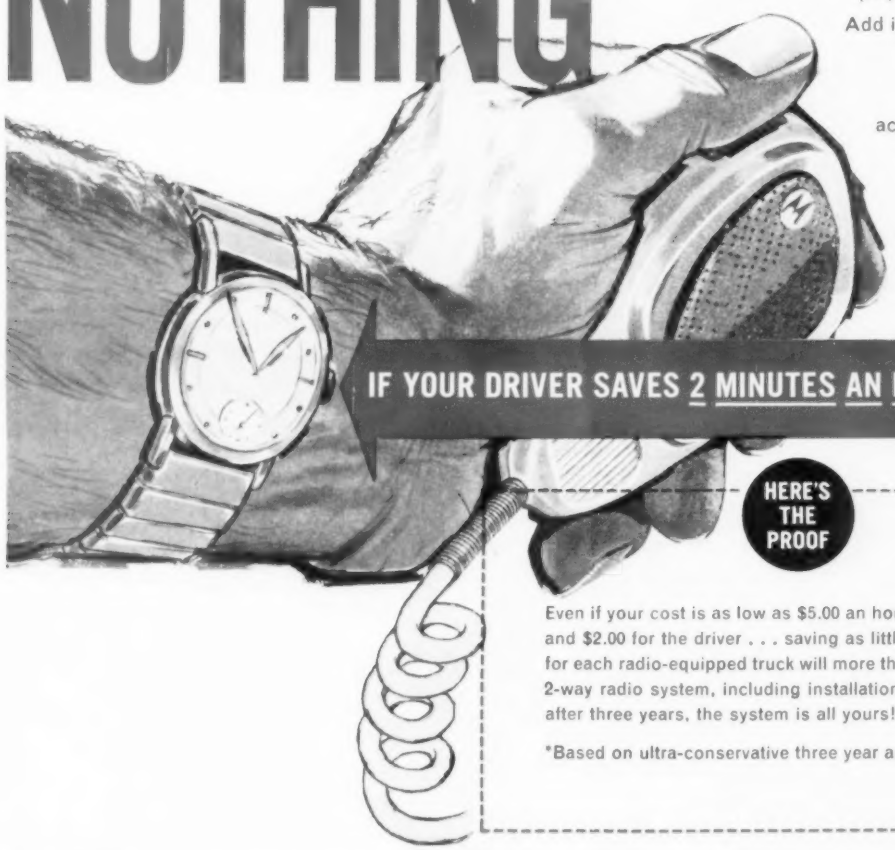
THE T. L. SMITH COMPANY • Milwaukee 1, Wisconsin • Lufkin, Texas

affiliated with Essick Manufacturing Company, Los Angeles, California.

For more information use postcard facing page 48.

MOTOROLA 2-WAY RADIO COSTS YOU NOTHING

Your driver spends a good two minutes every hour in phone hunting, parking and checking in regularly every day. By eliminating just this, your Motorola radio *pays for itself*—but that's not all. It saves time and money a dozen other ways. In fact, many users report that Motorola 2-way radio control saves them *an hour a day* and more for every truck! And they're glad they chose Motorola—for the pioneer and leader produces equipment that *performs better* and *lasts longer*. Add it up for yourself—you'll see why Motorola 2-way radio costs you nothing—actually *makes money* for you! Why delay any longer? Contact Motorola today.



IF YOUR DRIVER SAVES 2 MINUTES AN HOUR WITH RADIO

HERE'S THE PROOF

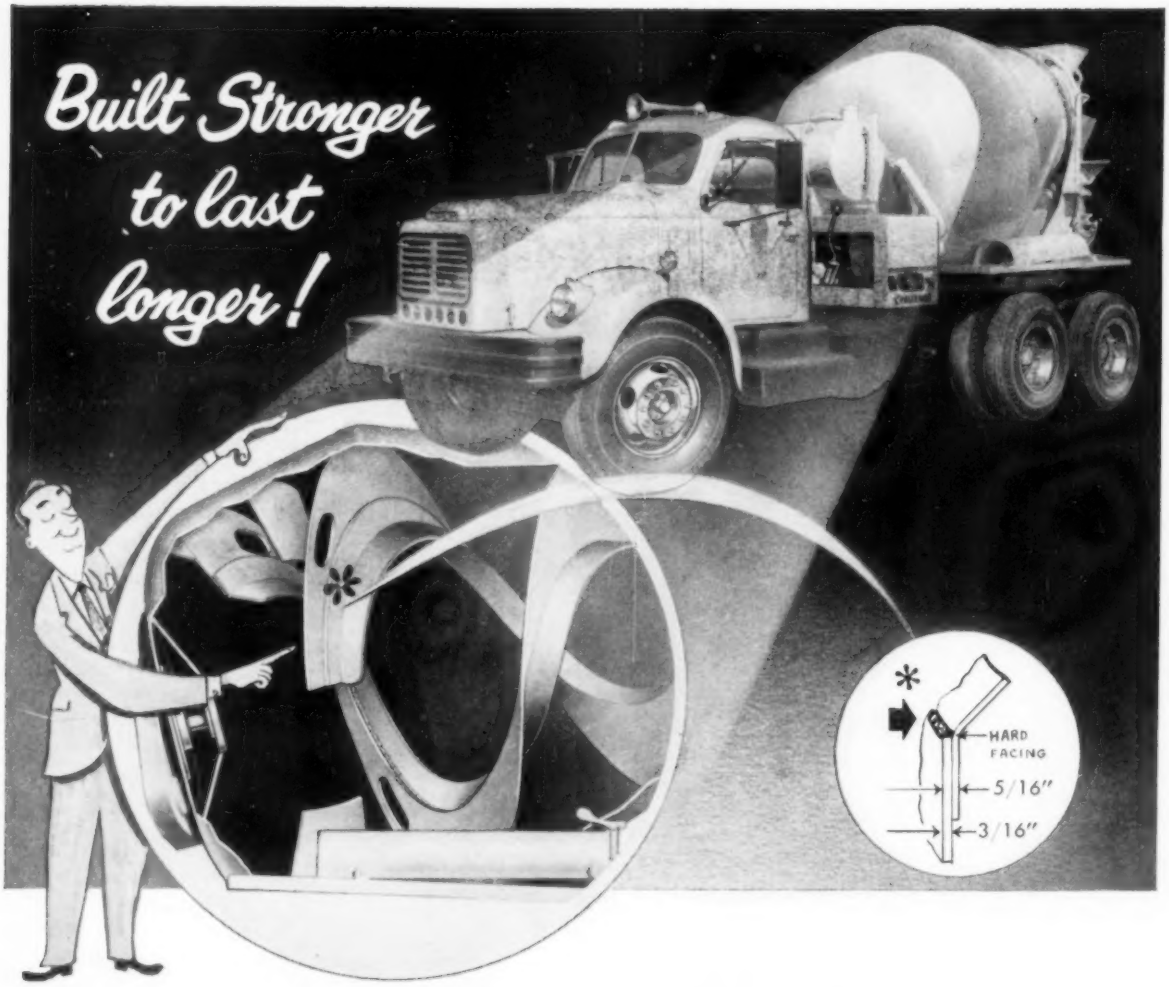
Even if your cost is as low as $5.00 an hour . . . $3.00 for the truck and $2.00 for the driver . . . saving as little as 2 minutes an hour* for each radio-equipped truck will more than pay for your Motorola 2-way radio system, including installation and maintenance. And after three years, the system is all yours!

*Based on ultra-conservative three year amortization schedule.

MOTOROLA *2-WAY RADIO*

MOTOROLA COMMUNICATIONS & ELECTRONICS, INC. • A Subsidiary of Motorola, Inc. • 4501 Augusta Blvd. • Chicago 51, Illinois

For more information use postcard facing page 48.



CHALLENGE *Pacemaker* TRUCK MIXERS For '58

"SMD"* MIXING BLADES

Another exclusive Challenge feature — another Challenge engineered and field proved development that makes "The Best Even Better in '58"— to give years of added service life to the Challenge Pacemaker . . . to give YOU greater profit per your equipment dollar!

Challenge "SMD" mixing blades are made of 3/16" high-tensile, abrasion and corrosion resistant steel, same as before. But NOW, as a result of exhaustive field tests, a new high-tensile steel, reinforcing flange, makes them a full 5/16" thick and hard faced at the wear point. The reinforcing flange not only means longer blade life, but it makes discharging easier and faster.

*Specification Mix Design

A few of the other 1958 Challenge Pacemaker features include:

- New Water Tank Location For Better Vision to Rear of Mixer.
- New Recessed Instrument Panel For Greater Instrument Protection and More Convenient Operation.
- New, More Convenient Location of Zerk Grease Fittings For Easier Service and Maintenance
- New Bright Colored Plastic Caps That Protect Zerk Grease Fittings and Keep Them Clean.
- New Engine Hood For Easy Access To Mixer Engine.

action test the Challenge for '58

CB COOK BROS.

COOK BROS. EQUIPMENT CO.

Exclusive World-Wide Distributors For Challenge Pacemaker Truck Mixers

3334 SAN FERNANDO ROAD, LOS ANGELES 65 • CLinton 6-3151

FROM THE NEWS DESK

Outline Building Plans of Federal Government

Just how big a prop government construction can be expected to give the economy and some new thinking on the design and equipment of government buildings will be two of the highlighted subjects of the 7th annual meeting of the Building Research Institute at the Shoreham Hotel, Washington, D. C., April 21-23.

Three top government building officials will address members of BRI and others from the building industry and related professions at this three-day session. They are Harry Zackrison, supervisory general engineer for Army's Office of the Chief of Engineers; FHA commissioner Norman Mason, and Fred S. Poorman, deputy commissioner of Public Buildings Service for General Services Administration.

In a session titled, "Future Building Programs of the Federal Government," Mr. Zackrison will discuss military construction planned for the immediate future. Commissioner Mason will reveal future plans for FHA's technical studies program and details of the agency's forthcoming new Minimum Property Standards. Commissioner Poorman will talk about public buildings already on the drafting boards and those planned for early construction.

Noting that manufacturers of building materials and equipment have a big stake in the government's future program, BRI executive director William H. Scheick said the meeting should provide an excellent opportunity for them to talk face to face with the men who control the design, materials use and general planning of government buildings. The audience will have a prime opportunity to quiz the experts during the open discussion period following the talks.

Predictions about the market for buildings and building materials in the next ten years, based on anticipated population growth and trends in relocation, will be made by nationally known Washington economist Robinson Newcomb.

New methods and materials will take the spotlight in a session devoted to "New Materials News." Using solar energy to both heat and cool a home, and discussion of such a home now under construction in Phoenix, Ariz., will provide another highlight for the program, which is open to everyone associated with the building industry, in addition to members of BRI.

The Building Research Institute, which is a unit of the Division of Engineering and Industrial Research of the National Academy of Sciences — National Research Council, is a membership organization engaged in the stimulation and coordination of research for the building industry as a whole. It is a non-profit enterprise supported entirely by the industry and the related professions. BRI members are builders, architects, engineers, contractors, building owners, and manufacturers and distributors of buildings products of all kinds.

■

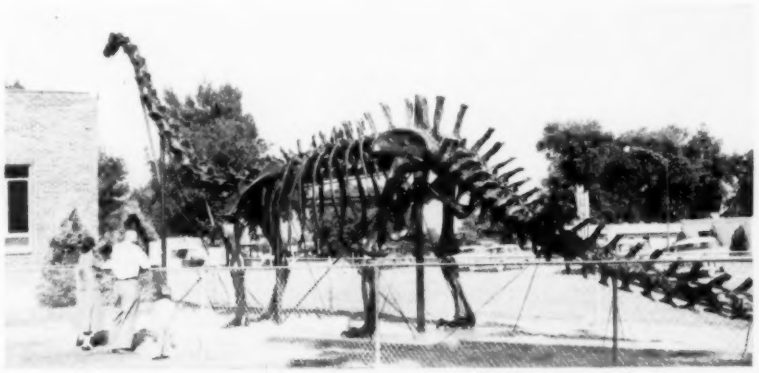
Block Makers Urged to Help in Accident Survey

The Bureau of Labor Statistics is currently conducting a special survey among producers of concrete block and brick to help identify the major sources of injury within the industry and thereby assist management in planning effective safety programs. This special survey has the endorsement of the National Concrete Masonry Association which urges all producers in and outside its membership to cooperate with the bureau in furnishing data for 1957.

One of the primary functions of the Bureau of Labor Statistics is to service the safety movement by compiling information about work injuries. As a regular operation, the bureau provides quarterly and annual injury rates representing the average work-injury experience in many industries and occupational activities. These rates measure the trend toward work safety and serve as a basis of comparison against which individual establishments evaluate their own experience.

To supplement these continuing regular surveys, the bureau periodically conducts special, one-time surveys in selected industries to provide more detailed information than can be drawn from the regular surveys.

Any concrete block or brick manufacturer who may not have received forms can secure them free by asking for Form BLS-2594 from U. S. Department of Labor, Bureau of Labor Statistics, Washington 25, D. C.



● This concrete dinosaur is a real traffic stopper in front of the Utah Field House of Natural History in Vernal, according to director G. E. Untermann. He says it took three years to complete "Old Dippy" from molds that had gathered dust for more than 40 years in the basement of the Carnegie Museum in Pittsburgh. The plaster molds were made from an original skeleton in the museum. The casting was done by Grant Merrell at the Otto Buehner Concrete Products Co. in Salt Lake City.

You get it in the 1958 Jaeger ...the world's fastest, easiest single-stick shift

If you did not get to see it at the Chicago show, let us tell you about one of the truly important improvements in truck mixers — Jaeger's 1958 single-stick transmission shift with synchromesh reversing transmission.

This radically improved design enables your drivers to reverse their drums with one fast, smooth, *positively guided* movement of a single lever. The whole operation is effortlessly easy and absolutely foolproof.

And you get a lot more to like in the 1958 Jaeger Model F:

Improved discharge blade design gives you the smoothest, most uniform discharge of hard-to-control high slump concrete when delivering to wheelbarrows or thin wall forms. Also gives you faster discharge of stiff mixes, too.

Lighter, more versatile discharge chute up to 13′ length. Deeper chute head eliminates spillage.

Complete choice of driving method: Either Continental or Chrysler separate engine, front-of-truck engine pto or Jaeger's completely new ahead-of-truck-clutch pto.

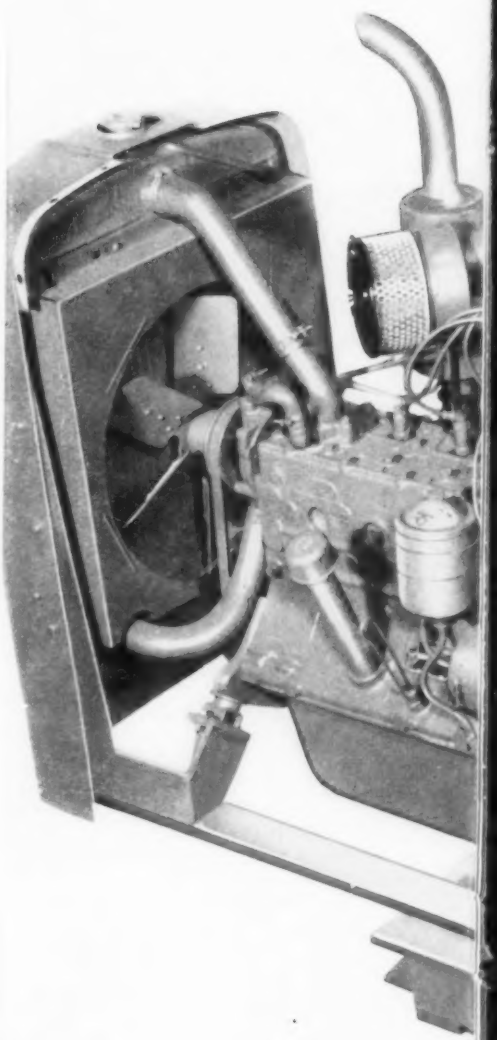
Always the advantage of a faster better mix: You'd be surprised (unless you have actually compared them on a job) how much less time it takes a Jaeger truck mixer to "make a mix". With Jaeger's 3-speed transmission (up to 16 rpm) you can charge faster. With Jaeger's exclusive "Dual Mix" action and "throw back" reversing blades, you mix faster and produce more uniform, higher strength concrete. With Jaeger's discharge blade design and chute, you can discharge faster, *often by several minutes*, whether material is low or high in slump.

Lighter weight too: Jaeger Model "F" mixers are lighter, mount to advantage on all standard trucks, cost less than ever to maintain. Let us give you the complete facts. See your Jaeger distributor — or write for Specification TMS-8.

THE JAEGER MACHINE COMPANY

522 Dublin Avenue, Columbus 16, Ohio

Jaeger Machine Company of Canada, Ltd., St. Thomas, Ontario



1: Clutch 3: Brake

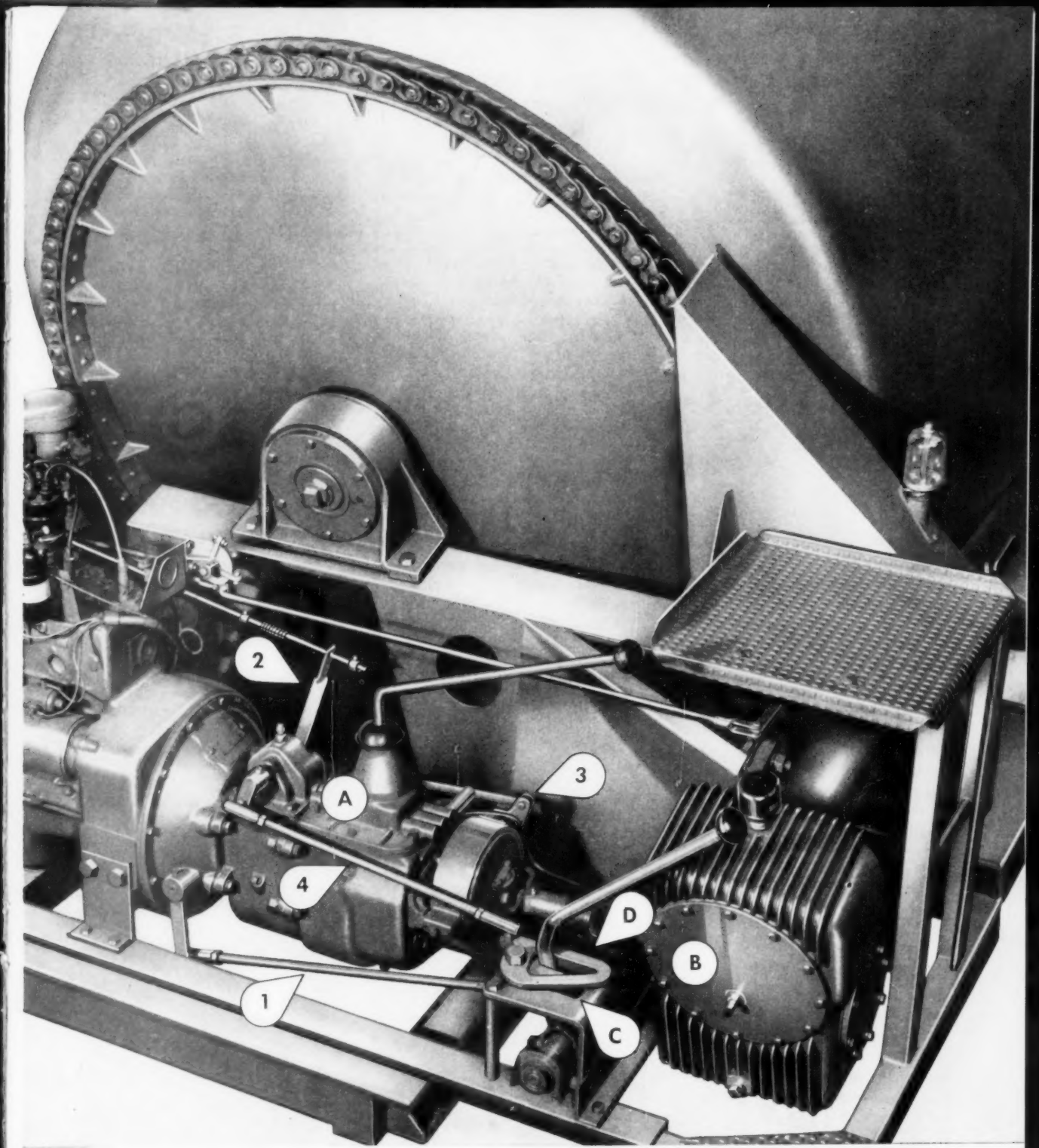
2: Throttle 4: Reverse

A: 3-Speed transmission with synchromesh reversing transmission

B: Big, fin-cooled final reduction case

C: U-guide

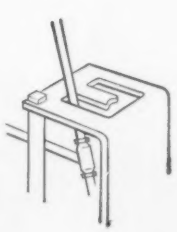
D: Cam lever



Jaeger's Silent, Single-Movement Shift

Forward-reverse shift lever operates in a U shaped guide. Neutral position is in the bottom of the U. The lever directly operates the clutch and also, by extension through the clutch, the throttle and brake. Reverse shifting is through a triangular cam lever, pivoted above the U slot so as to operate when the shift lever is moved, in neutral, across the bottom of the U guide.

Operator cannot reverse gears without automatically throttling the engine, stopping the drum and disengaging the clutch. He does this with one short movement of his lever. Merely continuing that same movement, around the U, then shifts gears and resumes drum operation in reverse. It is simple, positively guided, and clash-proof — the fastest and easiest of all mechanical shifts. *(Patents Pending)*



NRMCA and NSGA Boards Call for Legislation to End Compulsory Membership in Unions

At meetings of the boards of directors of the National Ready Mixed Concrete Association and the National Sand and Gravel Association in Chicago, February 11, a resolution was unanimously adopted which called for the enactment of legislation at the federal and state level which would make compulsory membership in a labor union illegal in the United States. Eighteen states have already enacted legislation of this character. Full text of the joint resolution follows:

"Resolved, by the board of directors of the National Sand and Gravel Association and by the board of directors of the National Ready Mixed Concrete Association, meeting in Chicago, Ill., on Tuesday, February 11, 1958, that they support wholeheartedly the principle of voluntary unionism and that they adopt the following statement as an expression of their belief that compulsory membership in a labor union is antagonistic to our free society and should forthwith be made illegal by appropriate legislation:

"The United States is dedicated, not only in its Constitution, but by its traditions as well, to the protection of the rights of the individual. The first ten amendments to our Constitution reflect the fears of the men who founded this government that the rights of free men would be in peril if the powers of government were not limited and specified. All responsible Americans are still devoted to the principle that the ultimate powers of government reside in the people, and that government, at both the national and state levels, possesses only the authority which the people have delegated to it.

"While Americans have been alert to the importance of controlling the powers of government, we have nevertheless permitted labor unions to assert powers over the individual worker which we cannot tolerate by government itself. He has been deprived by labor unions of his right to choose whether to join or to not join a labor union. He knows, from bitter experience, that a condition of employment in many cases is that he shall join and remain a member of a union. If he refuses, he will be denied an opportunity to provide a livelihood for himself and his family.

"The individual worker has also learned that joining a union means that he must submit without protest to the payment not only of initiation fees and dues, but also of fines and penalties imposed by union officers who function as prosecutor, judge and jury, and from whom there is no appeal. He has learned all too frequently that he may not safely call for democratic election of union officers by secret ballot. Unions can impose a heavy price on a tendency to ask questions which union officials might regard as impertinent, since permanent blacklisting by the union

• 536 man-years employment is represented in this group of Besser Company people gathered to mark the retirement of Jimmy Miller, front row center, who ended 53 years of service on March 1. Jimmy started with Besser as a machinist, was later production manager and head of the machine and electrical departments. He was foreman of the maintenance department at retirement.

Calendar . . .

1958

APRIL 21-23	Building Research Institute — 7th Annual Meeting — Shoreham Hotel, Washington, D. C.
APRIL 24-25	Western Concrete Pipe Association — Annual Meeting — Hacienda Motel — Fresno, Calif.
MAY 5-10	International Prestressing Federation — 3rd International Congress — Congress Hall — Berlin, Germany.
MAY 11-13	Empire State Sand, Gravel & Ready Mix Association — 7th Annual Convention — Hotel Syracuse, Syracuse, N. Y.
JUNE 22-28	American Society for Testing Materials — Annual Meeting and Exhibit — Hotel Statler, Boston, Mass.
JUNE 23-27	American Society of Civil Engineers — National Convention — Hotel Multanomah — Portland, Oreg.
AUGUST 4-6	National Cinder Concrete Products Association — Summer Conference of Lightweight Concrete Block Manufacturers — Chalfonte-Haddon Hall, Atlantic City, N. J.
SEPTEMBER 21-25	Prestressed Concrete Institute — 4th Annual Convention — Edgewater Beach Hotel, Chicago, Ill.
OCTOBER 13-17	American Society of Civil Engineers — National Convention — Hotel Statler — New York, N.Y.
OCTOBER 16-19	Empire State Sand, Gravel & Ready Mix Association — Fall Conference — The Concord, Kiamesha Lake, N. Y.

is also an effective denial of employment wherever he might seek work. This system of tyranny explains why the worker has too often been deprived of the benefits of welfare and retirement programs provided for in labor-management agreements, as the McClellan Committee has disclosed.

"We join with those who believe that the worker will be free and will regain his dignity and self-respect only when our country has a firm policy of voluntary unionism, established and protected by both state and federal statutes. The Labor Management Relations Act guarantees, and properly so, that workers shall not be coerced in the exercise of their right to join or not to join a labor union. Yet the same act permits unions to demand the union shop, under which after a brief initial period, the worker is coerced to join the union and remain a member in order to retain his employment. The act is contradictory on its face. Congress should correct it by striking out the system of involuntary union membership inherent in the union shop. So far as it is in their power, state legislatures should do likewise.

"Legislation of this character will not destroy or weaken responsible unions. When employees select a union voluntarily it will be responsive to their wishes and its voice will be regarded as their collective voice. The country will see an end to the incompetent, corrupt and communist-dominated union leadership to which workers have been forced to submit by fear for their jobs and concern for their physical safety.

"Unions have objected to what they call the free loader and use this as a cover for their argument for the union shop. Even if the argument were valid, it would be utterly inadequate to justify a deprivation of individual freedom. In fact, it is not valid. Unions which represent a majority of the employees in a bargaining unit cannot object to bargaining for non-members because it was the unions themselves which demanded and received statutory authority to compel employers to recognize the union as the exclusive bargaining agent for all employees in the unit. If unions find burdensome the responsibility of functioning as the exclusive bargaining agent for all employees, they can properly seek legislation to limit their representational authority to their own members.

"There is no room in a free society for involuntary union membership. Compulsion and freedom are incompatible and mutually exclusive. Unions believe that they perform a worthwhile service for their members. Let them make their faith clear by joining free men everywhere in ending the ugly system in which men are the prisoners of private organizations which stand between them and the right to earn a living for their families, and by supporting legislation which will restore to men the opportunity to seek and retain gainful employment without paying tribute to labor unions."

■

Stanton Walker Named Honorary Member by ACI

Stanton Walker, director of engineering of the National Ready Mixed Concrete Association and the National Sand and Gravel Association, is one of three eminent men on whom has been conferred honorary membership in the American Concrete Institute in recognition of outstanding service in the field of concrete or in the work of the institute. Their election was announced at the Awards Luncheon during ACI's 54th annual convention in Chicago, February 26.

The other new honorary members are Eugene Freyssinet, Société Technique pour l'Utilisation de la Précontrainte, Paris, and Douglas E. Parsons, chief, Building Technology Division, National Bureau of Standards, Washington, D. C.

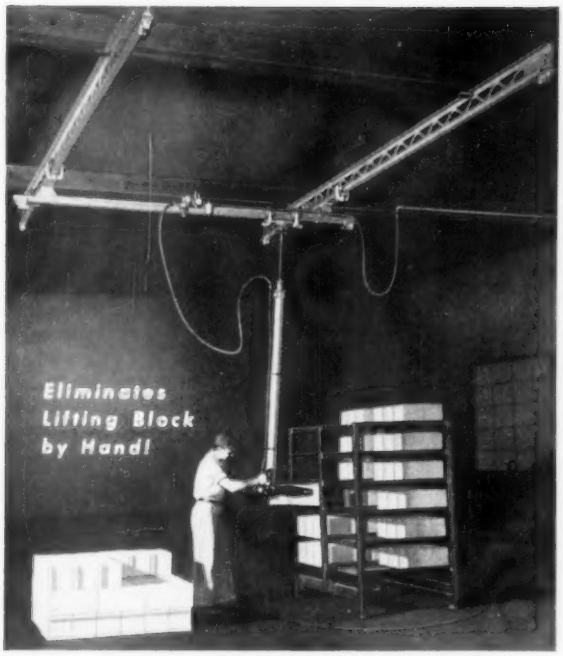
Only 22 others have been elected to honorary membership in ACI history since the first honorary member was named in 1926.

■

Pittsburgh RMCA Names New Board for 1958

At the recent annual membership meeting of the Ready Mixed Concrete Association of Metropolitan Pittsburgh the following officers were elected to direct the association's affairs during 1958:

President, F. J. Lloyd, Jr., Keystone Division of Dravo Corporation; vice president, E. V. Schaefer, Marion Coal & Supply Co.; treasurer, E. K. Davison, J. K. Davison & Bros.; director, Ralph Ord, Builders Supply Co.; director, D. T. McCandless, William H. Brant Sons, Inc.; assistant treasurer, R. R. Geisler, Keystone Division of Dravo Corporation. J. C. Moran was renamed association secretary.



BESSER Bridge Crane BLOCK CUBER

Now — you can eliminate the old-fashioned method of lifting block . . . one at a time . . . by hand. The Besser Bridge Crane Block Cuber builds a cube for convenient fork lift truck transportation to storage yard. Operator merely guides the easy, rolling crane which carries the block to the correct position for making a neat, square cube. Pays for itself through labor savings in a short time. Simplifies inventory count. Permits neat stockpiling. Saves yard space.

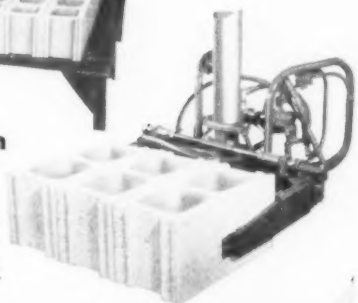
Write for Bulletin No. 103.

Cubing platform

Open grating of welded all-steel construction. Self-cleaning, with guide for perfect alignment of block. Note how easily 3 blocks are tipped over, in a single motion for first course.

Combination clamp

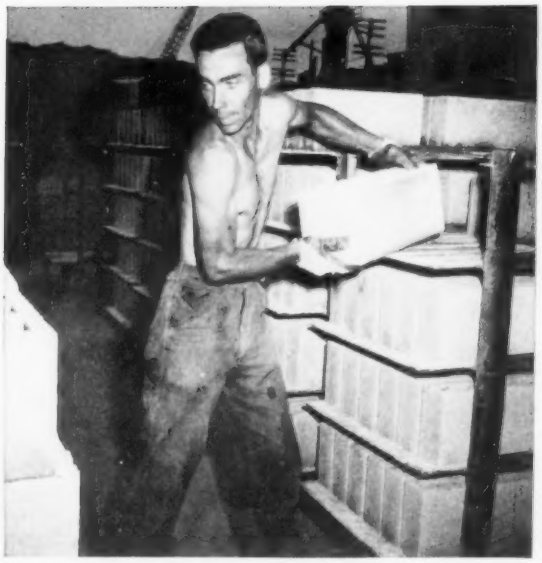
Simplifies handling of block or brick from rack to cube. Convenient control levers eliminate finger fatigue . . . make it easy to remove block from highest and lowest deck.



BESSER COMPANY

Complete Equipment for Concrete Block Plants

ALPENA, MICHIGAN, U.S.A.



EDMONT CASE NO. 619: Handling concrete block and tile, an ordinary plastic coated glove averaged 2 shifts' wear. Edmont's vinyl-coated glove with triple-thick palm (No. 31 Monkey Grip) wore 8 shifts, reducing glove costs from 40c per man-day to 11c.

Job-fitted Edmont outwears ordinary plastic 4 to 1, cuts glove cost 73%

Monkey Grip No. 31
triple-thick palm

Grab-it No. 60W
palm-coated knitwrist

Monkey Grip No. 30
palm-coated knitwrist

The above experience is typical of the savings provided by *job-fitted* gloves. Edmont recommended the No. 31 Monkey Grip for this job because it is the longest wearing glove ever developed for handling concrete products. Its triple-thick palm coating of vinyl plastic has unequalled resistance to abrasion and snagging, excellent grip and will not chip, crack or peel. Edmont's exclusive pattern, with curved, pre-flexed fingers and wing-thumb, gives perfect hand fit, improves dexterity and reduces accidents.

For non-slip grip on bags

EDMONT CASE NO. 511: Handling bagged limestone dust, ordinary plastic coated gloves wore 32 hours. Edmont recommended a rough-finish natural rubber coated glove (No. 60W Grab-it). It gave a more positive grip on the slippery bags, wore 248 hours, and reduced glove costs 78%.

Cool palm-coated glove outwears canvas 5½ to 1

EDMONT CASE NO. 603: Canvas gloves lasted only 1 shift handling concrete block. On the same job, Edmont's No. 30 Monkey Grip gloves, with plastic coated palms, averaged 5½ shifts.

FREE TEST OFFER TO LISTED FIRMS: We make more than 50 different types of job-fitted gloves, including styles and coatings to fit every specialized need of the concrete products industry. Describe your operation and materials handled. Without cost, we will send you recommended gloves for on-the-job comparison testing.

Edmont Manufacturing Company
1206 Walnut Street, Coshocton, Ohio
In Canada write MSA, Toronto

Edmont

Edmont JOB-FITTED GLOVES

For more information use postcard facing page 48.

ASTM Group Proposes New Masonry Test Method

A proposed new method of test for the determination of drying shrinkage of masonry units will be submitted to the ASTM for adoption at its annual meeting in June based on the actions of Committee C-15 at its meeting February 11, during ASTM committee week in St. Louis. Drying shrinkage of concrete block is a matter of primary concern to the concrete masonry industry.

The committee also completed the first phase of its work on a method of test to determine the effectiveness of coatings of waterproofing materials for unit masonry walls and advanced its work on numerous other methods of test and specifications including those applying to clay brick and sewer brick.

Officers of the committee are: Chairman: J. W. Whittemore, Virginia Polytechnic Institute, Blacksburg, Va., 2nd Vice Chairman: P. M. Woodworth, The Waylite Co., Chicago, Ill., Secretary: M. H. Allen, Structural Clay Products Research Foundation, Geneva, Ill.

■

McHenry Elected Head of ACI at Chicago Meeting

Douglas McHenry, director of development, Research and Development Division, Portland Cement Association, was elected president of the American Concrete Institute for 1958 at the Institute's 54th annual convention in Chicago. He succeeds Walter Price, director of engineering laboratories, U. S. Bureau of Reclamation.

The American Concrete Institute is a national non-profit organization formed to gather, correlate and disseminate information for the improvement of the design, construction, manufacture, use and maintenance of concrete products and structures.

Mr. McHenry, who has served for the past two years as vice president of the ACI, has been director of development at the laboratories of the Portland Cement Association since 1952. For twelve years prior to that, he was with the Bureau of Reclamation in Denver where he served as head of the Structural Research Section of the Engineering Laboratories Branch and later as head of the Concrete Laboratory Section. From 1934 to 1940 he was with the Tennessee Valley Authority, working on construction of the Norris and Hiwassee Dams and power plants, and on research on the structural behavior of TVA structures.

Mr. McHenry is especially well known in engineering circles for his numerous reports and articles on concrete technology and structural design. In 1943 he received the Sanford E. Thompson Award of the American Society for Testing Materials for his paper "A New Aspect of Creep in Concrete and Its Application to Design," and in 1944 the Telford Award of the Institution of Civil Engineers of Great Britain for the paper "A Lattice Analogy for the Solution of Stress Problems."

He has been a member of the American Concrete Institute since 1936, during which time he has served on the Board of Direction and as a member of a number of committees, including duties as chairman of the Technical Activities Committee and Committee on Volume Changes and Plastic Flow in Concrete.

Mr. McHenry is a member of the American Society of Civil Engineers, the American Institute of Physics, the Society for Experimental Stress Analysis, the Reinforced Concrete Research Council, the U. S. Committee on Large Dams, and Sigma Xi, science research society.

● Being built for the City of Tyler, Texas, this massive two-million gallon elevated concrete storage tank was nearing completion at mid-March. Tank is elevated on 160 ft. tower, 195 ft. to overflow. Upon roof completion the tank wall will be prestressed by the wire-winding "merry-go-round" machine of the Preload Company, New York City, who designed the tank.

ARBA Task Force Urges Senate Highway Action

On February 25, Julien R. Steelman, president of the American Road Builders Association, and president of Koehring Company, Milwaukee, Wis., led a panel of representatives of all components of the highway industry and engineering profession in an appearance before the United States Senate subcommittee on roads to oppose a stretchout of the Interstate Highway program.

In addition to opposing any stretchout, the ARBA group recommended Congressional action to authorize $11 billion more in federal aid to complete construction of the 41,000 mile Interstate System of Highways within the next eleven years. ARBA asked that the "pay-as-we-go" philosophy written into the present law be scrapped; that certain tax levies on highway users be extended beyond 1972 for an indefinite period; that revenue bonds, as needed, be issued to finance the program on schedule; that diversions from the Federal Highway Trust Fund be stopped; and that consideration be given by Congress to channeling the receipts from all motor vehicle taxes from the treasury's general fund into the Highway Trust Fund.

■

Iowa CMA Becomes New State Chapter of NCMA

The Iowa Concrete Masonry Association in a unanimous action has voted to affiliate as a chapter member of the National Concrete Masonry Association. The decision came at the group's fifth annual convention, February 26, at the Hotel Savery in Des Moines.

Three other state organizations, Nebraska, Oregon and Kansas, already have been granted chartered status in NCMA. Under the affiliation program, two-thirds of the state association must be members of the national body to be eligible for full reciprocity benefits.

New officers for the Iowa association in 1958 are: Luke Altfillisch, president, Concrete Products Co., Iowa Falls; Larry Condrey, vice president, Cedar Rapids Block Co., Cedar Rapids; Jack Phillips, vice president, Spencer Concrete Products Co., Spencer; and Scotty McDonald, secretary-treasurer, Iowa Concrete Block & Material Co., Des Moines.

• ELIMINATES CULLS • CUTS COSTS
• INSURES BETTER MIXING
AND UNIFORM TEXTURE OF CONCRETE

MODEL No. 9

Dual Flemeter Moisture Meter

Combined unit for lightweight and hard aggregate concrete block and concrete tile. Small, compact. Simple to install. Maintenance-free. Plug into 110-V outlet. Price F.O.B. Cuba, Missouri **$167.50**

GUARANTEED *TO DO THE JOB* OR RETURN IN 30 DAYS FOR FULL REFUND!

With the Fleming Moisture Meter *guessing is eliminated*. Regardless of how much your aggregates vary in moisture content the Fleming Moisture Meter will enable you to turn out batch-after-batch of concrete having exactly the same moisture content.

This electronic moisture meter detects moisture content by measuring the degree of electrical resistance in the mix. The more moisture the smaller the resistance, thus resulting in a higher reading on the scale.

The meter can be installed in an hour's time — no technical skill is required. Two probe bolts replace two mixer mounting liner bolts. After the probes have been inserted in the mixer the meter is turned on, passing an electrical current through the concrete between the probes.

To produce batches of concrete with the same moisture content, simply add water until identical dial readings are obtained.

HOW THE DUAL FLEMETER INCREASES YOUR PROFITS

- Insures addition of the right amount of water in each mix.
- Accurate determination of water results in uniform textures and strength.
- Gives you more blocks per man-hour.
- Saves cement, eliminates trouble from variations in aggregate moisture conditions.
- Meets requirements of any size plant.
- Instructions included.

Order with Confidence! If not Completely Satisfied, Return in 30 Days for Refund!

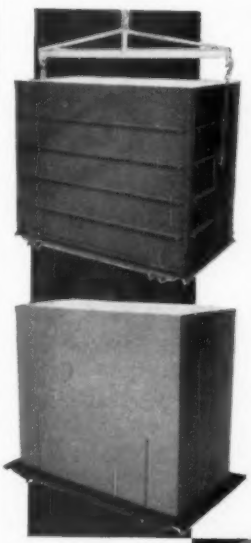
FLEMING MFG. CO. 183 **Fleming Ave., Cuba, Mo.**

Designed to meet the most exacting specifications of

Federal, State and Municipal regulations.

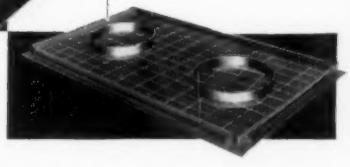
NORWALK SEPTIC TANK MOLDS—

FOR MAKING APPROVED SEPTIC TANKS



Build rectangular, concrete septic tanks that will meet the approval of local health officers and sanitary engineers . . . build them quicker and at lower cost with NORWALK equipment.

Financing may be arranged.



May be manufactured in any size from 500 up to 2000 gallons working capacity.

Write for details

NORWALK VAULT COMPANY

DEPARTMENT A8 • NORWALK, OHIO

CUT CONCRETE BLOCK FASTER WITH THE ALL-NEW

Clipper

"SAILS RIGHT THRU"

SUPERMATIC MASONRY SAW

with STA-LEVEL HEAD *and* HI-LO CONTROL WHEEL

NO ADJUSTMENTS TO MAKE

No Need to Turn Off Motor to Raise or Lower Cutting Head . . Ready to Cut at Any Height From 0" to 17". . . No Levers or Knobs to Pull. No Gears, No Slides or Unnecessary Parts to Wear Out!

Here's a NEW Clipper BOND the CD-7245-3

. . best for all HEAVY and LIGHT-WEIGHT BLOCK. Here's a blade to out-cut, out-last, out-perform the ordinary so-called "tungsten carbide" blades.

Choose from the world's largest selection of Diamond, Break-Resistant and Abrasive Blades.

For any saw — every material. Call your Clipper Factory Trained Representative for Same Day Shipment.

Clipper also builds the famous **"Select-A-Notch"** Masonry Saw—the Saw that one man can adjust from his cutting position. priced from **$335**

Genuine Clipper Products Sold Direct— Immediate Shipment From Factory Branches Coast To Coast

CLIPPER MANUFACTURING CO.
2807 E. WARWICK • KANSAS CITY 8, MO. 235X

- ☐ Ship a SUPERMATIC Masonry Saw on FREE TRIAL
- ☐ Send FREE literature on Clipper Super-Matic and Select-A-Notch Masonry Saws
- ☐ Send information on Clipper Premium Quality Diamond, Break-Resistant and Abrasive Blades
- ☐ Send my Clipper Factory Trained Representative to see me

NAME _____

ADDRESS _____

CITY, STATE _____

Umbrella for Foundations, Inverted Umbrella for Roof Features of New Pennsylvania School

The Keystone Division of Dravo Corporation, Pittsburgh, is supplying some 2200 cubic yards of special lightweight concrete for "umbrella" foundations, columns and an "inverted umbrella" type roof of a new parochial school at Etna, Pennsylvania.

A one-story structure with eight classrooms, offices and attendant facilities, the All Saints Roman Catholic School incorporates design details followed successfully in South America, Europe and some of the Western states in recent years. The building will be completely fireproof.

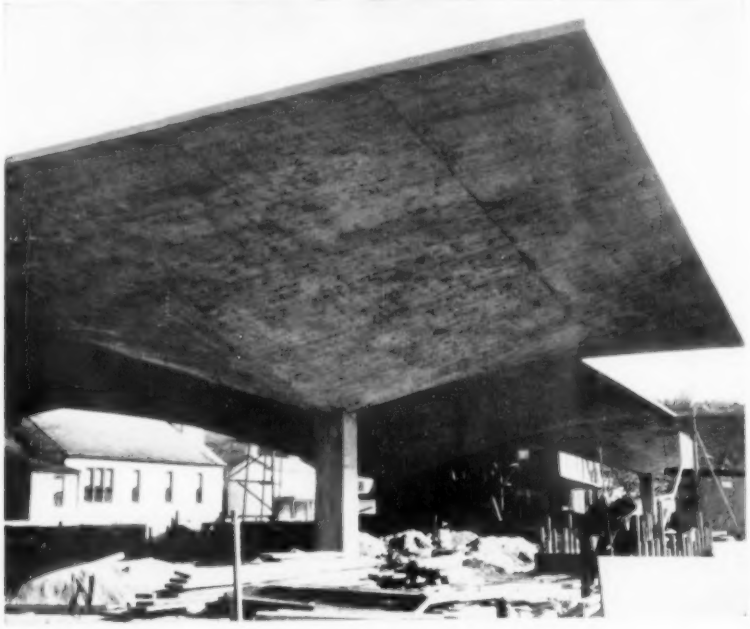
Rigid specifications for the type and strength of the concrete used on the structure were met with the help of Dravo's research center. The aggregate used in the concrete was specified as expanded slag, and the total weight of the mix was not to exceed 100 pounds per cubic foot, or approximately 65 per cent of the weight of a normal concrete mix. In spite of its light weight, the concrete was required to have a compressive strength in excess of 3,000 pounds per square inch.

Described by J. Kenneth Myers, Pittsburgh architect, as a hyperbolic paraboloid structure, the building was designed and constructed in this manner to meet land conditions. Test borings at the site and in the immediate vicinity of All Saints' church disclosed a 20-foot slag and cinder fill over a water table and this condition necessitated a building load limit of not more than 400 pounds per square foot.

To meet this condition, the architect and Triggs and Mellett, Pittsburgh building design engineers, introduced the "umbrella" idea. Basically the 165-ft. by 82-ft. building consists of five re-enforced concrete umbrella shaped foundations in conventional position, on which have been poured four 10-ft. by 2-ft. by 2-ft. concrete columns, and one 8-ft. by 2-ft. by 3-ft. column. These five columns each support an "inverted umbrella," the center unit measuring 63 ft. by 57 ft. and four others, 58 ft. by 45 ft. Foundation "umbrellas" are slightly smaller in size, one 34 ft. x 30 ft., four 30 ft. x 25 ft.

Built into each "inverted umbrella" roof section are electric heating coils which will be used in winter to prevent snow loading and a buildup of ice around the mouth of drains. The concrete surfaces of the roof units will be covered with a built-up roofing material, lapped at unit jointures to prevent leaks. Drainage from the roof will be through each of the supporting columns and through the five foundation piers to underground carry-off lines.

■



Driver Training Replaces Ohio RMCA Short Course

At its board of directors meeting in Chicago, February 11, the Ohio Ready Mixed Concrete Association voted to substitute a driver training, safety and fleet maintenance course for its quality concrete short course in 1959.

The association's previously designated public relations committee will be augmented to serve as the committee to develop the new course.

■

MEN IN MOTION

Robert M. Corcoran has been appointed traffic manager, eastern region, of Universal Atlas Cement Co. He will have responsibility for traffic and transportation matters relating to the company's plants at Fairborn, Ohio; Hudson, N. Y.; Northampton, Pa.; Universal, Pa.; and Leeds Ala. . . . . **Augus MacDonald** has been named director of engineering of both Motorola's Chicago military electronics center and the communication and industrial electronics division . . . . **George H. Giesler** is now sales representative of Fulton Sylphon Division, Robertshaw-Fulton Controls Co. with headquarters at Knoxville, Tenn. . . . . **Arthur D. Marks,** manager of the foreign division of Hercules Motors Corporation since 1945, has been named director of sales at Canton, Ohio . . . . . **Charles McKenna** has been appointed sales representative for Leschen Wire Rope Division, H. K. Porter Co., Inc. His territory will be all of New England and upper New York state . . . . . **Gordon K. Ray** has become manager of the highways and municipal bureau of the Portland Cement Association succeeding **Leo M. Arms,** who has been named technical adviser of the same bureau . . . . . **J. A. Kelley** has been elected president of Zonolite Company, Chicago, Ill. He succeeds **J. B. Myers** who resigned the presidency to continue his association with the company as a consultant . . . . . **Joseph P. Gibbons** has joined the Alpha Portland Cement Co., Easton

Pa., as a sales representative in northeast Pennsylvania with headquarters in Scranton . . . . . **George L. Breen** of Pompton Plains, N. J. has joined the technical sales staff of Sika Chemical Corporation, Passaic, N. J. . . . . **Robert T. Stafford** has been named general manager of the steel service plant of Joseph T. Ryerson & Son, Inc. at Seattle, Wash. He succeeds **W. Raymond Lockwood,** who has been appointed manager of the machinery division at Chicago, Ill. **Ernest L. Younts,** former manager of the machinery division, has been named machinery consultant . . . . . **R. Rex Hartup** has been appointed prestress planning engineer for Leschen Wire Rope Division, H. K. Porter Co., Inc., New York, N. Y. He will serve as special consultant to manufacturers of prestressed concrete products throughout the country. He is a veteran of the prestressed concrete industry, having been principally responsible for the development of the well-known Form-Crete steel casting form system of Food Machinery & Chemical Corp. He is a graduate civil engineer and a member of the Prestressed Concrete Institute. He is a resident of Lakeland, Fla., but will headquarter at the Leschen general office in St. Louis, Mo. . . . . **Richard F. Straw** has been transferred to Atlanta, Ga. to supervise sales in the Florida, Alabama, Georgia, South Carolina and Tennessee territory of Howe Scale Co., Rutland, Vt. . . . . **Larry J. Weiser** will headquarter at Minneapolis, Minn. as the new district sales representative for Huber-Warco Co., Marion, Ohio. His territory will include Wisconsin, Missouri, Nebraska, Iowa, South Dakota, North Dakota, Minnesota, upper peninsula of Michigan, southern Illinois and Manitoba and Saskatchewan, Canada . . . . . **Frank E. Pringle** has been made general sales manager of Howe Scale Co., Rutland, Vt. . . . . **Edward A. Murray** is the new assistant vice president of sales for the American Steel & Wire Division of the United States Steel Corp. He will headquarter in Cleveland, Ohio . . . . . **Glenn Herz** has been made chief engineer of Hyster Company, Portland, Oregon. He replaces **Al Zwald** who has announced his retirement, but who will remain with Hyster as an engineering consultant and as a member of the new products development and research committee of the company . . . . . **Donald A. Yeo,** the new western district manager for Martin-Decker Corp., Long Beach, Calif., will be responsible for sales and distributor training in the eleven western states and western Canada. **William L. Fleming** becomes the new midwest district manager for Martin-Decker with the same duties throughout the central and midwestern region of the United States and Ontario, Canada . . . . . **Paul Turaska** has been named district representative of Westinghouse Transit Mixer Division, LeTourneau-Westinghouse Co., Indianapolis, Ind. He will serve the territory between the Mississippi River and the Rocky Mountains . . . . . **William James O'Brien** has joined the Calcium Chloride Institute, Washington, D. C. as field engineer to provide engineering service on calcium chloride uses in Maryland, Pennsylvania, New Jersey and the northeast . . . . . **A. Philip Brendel** is the new manager of reinforcing products sales at the steel service plant of Joseph T. Ryerson & Son, Inc. in Pittsburgh, Pa. . . . . **Carl Spickelmier,**

For more information use postcard facing page 48.

Spickelmier Industries, Indianapolis, Ind., is the new Indianapolis regional director of the Home Improvement Council, New York, N. Y. . . . . **Roy Perler,** industrial truck salesman in New York City, has become eastern regional sales manager of Yale Materials Handling Division, Yale & Towne Mfg. Co. He will have industrial truck sales management responsibilities in Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, Pennsylvania, Maryland, Delaware, Virginia and eastern Canada . . . . . **Howard Johnson** has been named southern regional manager with headquarters at Atlanta, Ga., for Richardson Scale Co., Clifton, N. J. He succeeds **Ernest C. Mott** who is retiring after 39 years with the company . . . . . **Richard R. Goetz** is the new service manager, midwest region, with headquarters in St. Louis, Mo., for Allis-Chalmers Mfg. Co., Milwaukee, Wis. He succeeds **R. L. Stroope,** who returns to the company's works at West Allis, Wis. . . . . **A. F. Old** has been appointed vice president of Southern Lightweight Aggregate Corp., Richmond, Va. He was formerly production manager of the company's Bremo and Leaksville, Va. plants and will now be responsible for all of the operations of the company and its subsidiaries. **R. F. Gibson,** in charge of the Aquadale plant and **A. C. Ford,** director of sales, have been made officers of the corporation . . . . . **Fred F. Welch,** former manager of Hyster Company's San Francisco dealership, has been made manager of the company's sales and service division at Portland, Oregon . . . . . **Robert A. Olen,** president of Four Wheel Drive Auto Co., Clintonville, Wis., has been elected vice chairman of the board of directors and **Maurice E. Ash** has been elected to succeed him as president. **James A. Driessen,** who has been with the company since 1930, will continue in charge of company operations as executive vice president. Also continuing as part of the company's top management group are **G. F. DeCoursin,** vice president for sales, **Philip A. Larnino,** vice president for manufacturing, and **G. D. Simonds,** vice president for engineering . . . . . **Dean R. Sanderson** is the new resident calcium chloride field engineer for Michigan Alkali Division, Wyandotte Chemicals Corp., Wyandotte, Mich. His territory will include Minnesota, Wisconsin, Illinois and Iowa . . . . . **Wallace C. Fischer,** president of Servicised Products Corp., Chicago, Ill., has been elected president and a member of the board of directors of the Expansion Joint Institute. Other new members of the Institute's board include **William E. Hagemeister,** sales manager of the Construction Materials Division of Presstite-Keystone Engineering Products Co., St. Louis, Mo.; **H. G. Meadows,** president of W. R. Meadows, Inc., Elgin, Ill.; and **F. W. Lagerquist,** merchandising manager, Roofing and Allied Products Department, The Celotex Corp., Chicago, Ill. . . . . **John L. McCaffrey,** chairman of the board and chief executive officer of International Harvester Co., Chicago, Ill., has announced his retirement at the end of May after 49 years of service with the company. He will continue to serve as a member of the board and its executive committee. **Frank W. Jenks,** president, will succeed him as chief executive officer of the company. The office of chairman of the board will not be filled.

THE EDITOR'S PAGE

ELMER W. DIENHART

Well Done, Dien!

I have borrowed the Editor's Page from Doug Lee this month to pay CONCRETE's, and my personal, tribute to a man who will shortly leave the active scene of the concrete block industry to begin well-earned retirement.

Every industry has a few men which it honors as having contributed in a major way to the industry's initial growth and development. No man in any industry deserves that distinction more than does Elmer W. Dienhart, who has devoted a major part of his adult life to the concrete block industry.

Since 1918, when as a young man in his early twenties he joined the field staff of the Portland Cement Association in its Minneapolis district office, he has been intimately associated with the industry and its problems. In those early days machines were operated largely by hand and production per man per day averaged 200 units. A plant that made a thousand block a day was considered large. Producers not only had to wrestle with problems of producing good block, but they had to battle valiantly to get their product accepted and used. The competition of older, entrenched materials was vigorous and often bitter. Block producers had to fight their way into the building codes and even carry their assaults to the floors of state legislatures. Dien was in the forefront of many of those early campaigns.

From its founding in 1918 as the Concrete Products Association, through 1930 when the name was changed to the Concrete Masonry Association, the organization of block producers had depended largely on other organizations for technical and other assistance. In 1937, Dien, who by then was assistant manager of PCA's cement products bureau, took on supervision of the activities of the association on a part time basis in addition to his PCA duties. In late 1942, under the strong and courageous leadership of its then president, John L. Strandberg, NCMA decided it had to stand on its own feet and in January 1943 began operation as a completely independent association with Dien as its full-time executive secretary.

In 1942, block production was about 500 million units. Production in 1957 totaled approximately 2 billion units. Membership in NCMA then was about 140 producers. Today the regular and associate membership is some 600, representing at least 50 per cent of the industry's productive capacity. Two people comprised the 1943 staff. Today the staff Dien built numbers nineteen, plus two part-time employees.

These are the cold statistics of the progress that has been made in NCMA affairs under Dien's leadership. Taken by themselves, they measure accomplishment in which the association membership and the block industry at large can take justified pride. But, like all statistics, they leave untold the "blood, sweat and tears" that went into their making.

In no way do they reveal the burned gallons of midnight oil, the weeks and even months on end away from home and family, the struggle to squeeze the last drop of progress out of limited budgets, the ever-changing picture of competitive pressures that had to be met and solved, the agonizing choices to be made between time and effort spent on some local problem and the pressing demands of national affairs and, above all, the often thankless task of trying to please hundreds of members at once.

These are the things a trade association executive lives with every waking hour of every day of every passing year. Only a few people can be close enough to any man in this position to know what he really gives of himself to the organization and the industry he serves.

I am privileged and proud to number myself among those few who over many long years have worked closely with Dien and have known his devotion, his loyalty and his untiring efforts for the cause of the concrete block industry. Ben Wilk put it most appropriately at the recent NCMA banquet when he said, "in doing him honor tonight, we do honor to ourselves as well."

I'll settle for Ben's tribute for CONCRETE and for

DON PAPINEAU

● Dr. Joseph Kaplan, center, gestures to someone in the audience while his father-in-law, H. G. Feraud, left, and NRMCA's immediate past president, John W. Roberts, look on.

● The public relations booth at the hotel's exhibit entrance acts as a backdrop for the Ready Mixed Association's incoming officers: left to right, John B. Donovan, vice president, F. E. Schouweiler, vice president; M. Eugene Sundt, president; and Ralph Anderson, treasurer.

● Representatives of NRMCA safety trophy-winning companies line up: from the left, J. Kitchell Smith, Anderson Concrete Corp.—Class A; James A. Carnathan, Birmingham Slag Co.—Class B; Edward O. Harwell, Stewart & Nuss, Inc.—Class C; Paul Barnes, Certified Concrete Co.—Class D; and Robert Cayll, Cayll's Incorporated Ready-Mixed Concrete—Class E.

NRMCA

Far and away the largest crowd ever to take in the combined biennial show of the National Ready Mixed Concrete Association and the National Sand and Gravel Association descended upon Chicago, the second week in February.

Possibly it was the quantity and variety of machinery offered for view that brought the huge crowd (7,500 approx.) to Chicago's Conrad Hilton Hotel and Coliseum—every available plot of exhibit space in both halls was contracted for, and still some machinery manufacturers had to make do with less space than they would have liked to use.

Possibly it was the variety of talks given during the sessions that prompted plant owners and personnel to leave their desks—the talks ranged from promotion hints, through zoning and plant operations, to technical papers on cement and concrete.

But in any case, it wasn't the Chicago weather. All during the week-long show and convention the temperature hovered around or slightly below the zero mark.

Coming in as the new NRMCA president is M. Eugene Sundt, Albuquerque Gravel Products Co., Albuquerque, N. M. He took over the gavel from retiring president John W. Roberts, Southern Materials Co., Inc., Richmond, Va., during the morning session on Wednesday. The other new officers who were elected are: vice president—F. E. Schouweiler, Old Fort Supply Co., Ft. Wayne, Ind.; vice president—John B. Donovan, Valentine Concrete Co., Inc., Springfield, Mass.; and treasurer—Ralph H. Anderson, Anderson Concrete Corp., Columbus, Ohio.

Members of NRMCA's executive committee for the coming year are: William J. Hicklin Jr., Robert J. Hummel, Harold M. Lacy, and H. Irving Rhine. The eight new directors taking office for three year terms are: Frank N. Anderson, George Bathe, Quentin W. Best, Henry J. Brown, Willis H. Day, Thomas P. Eldred, George W. Garrett, and Frank P. Spratlen, III.

While much of the actual program

Meets in Chicago

• Changing the gavel

of the ready mixed sessions was devoted to merchandising and production problems in the industry, a goodly portion of the in-conversation talk centered around the question of what's in store, businesswise, in the near future. This subject was also discussed by a six-member panel as a part of the Thursday afternoon program.

Business Outlook

On a nation-wide picture, ready mixed business is down, but rather than a general decline in all areas of the country, the downward movement is spotty. It has hit some locales quite heavily and left others relatively unscarred.

As to the immediate future, a capsule of the expressions of the six men on the panel—C. G. Cooley, Norman J. Fredericks, Richard K. Humphries, Herbert G. Jahncke, E. J. Numan, and J. L. Shiely, Jr.—each of whom contacted other producers for verification of their own records, two were optimistic with reservations, three were somewhat pessimistic, and one speaker viewed business as moving sideways on a plateau for the next little while.

With the one exception of the area in and around Detroit, the panel members, though, seemed to agree that the latter half of 1958 should see an upswing. This falls right in line with the predictions of most of the economists in the U.S.

Edward J. Nunan, Buffalo Slag Co., Inc., Buffalo, N.Y., one of the two who was generally optimistic, went a little bit outside the actual area of the given topic of discussion. After presenting a picture of business in New York and surrounding states, Mr. Nunan went on to mention that there are other factors affecting a single company's dollar volume besides the general level of construction within the local trading area. Mr. Nunan's most important point was that the era of order taking has gone by the boards. A time for selling—real honest-to-goodness calling on past and prospective customers—is necessary if a ready mixed company is going to garner more than just a share of the business available.

Within this general thesis of making more calls, Mr. Nunan went into some detail about making appearances at public hearings in connection with the Federal Highway Act. Usually at these hearings, highway officials are faced by persons opposing the specific project; and without the help and backing of interested parties—contractors and suppliers—a number of projects may be doomed because of vociferous opposition.

Another important point touched on by Mr. Nunan was that men in this industry should, ". . . wipe the gloom off our faces, because you know you can talk yourself into a nice depression if you really put your minds to it."

During the Tuesday afternoon session on state and area association work, three subjects of interest to the ready mixed producer were discussed.

Thomas Durkin, in his talk about contacting the various governing bodies as a part of his duties as executive secretary of the Wisconsin Ready Mixed Concrete Association, Inc., broke the controlling bodies down into four groups: (1) county board officials, (2) village or city officials, (3) state legislative officials, and (4) federal government officials. Mr. Durkin did not attempt to decide which of these groups is more important. For the individual producer, it would depend on which group he had to contact most to get the particular jobs he was seeking. And with continued contact, the producer would come to know the acknowledged leader of each group that his company is working with.

A significant fact brought out in Mr. Feraud's talk on the effectiveness of the safety program, initiated in 1954 by the Southern California Rock Products Association and Southern California Ready Mixed Concrete Association, was that in the first three and one-half years of the program's operation the lost-time frequency injury rate was almost cut in half.

Paul Lenchuk, executive secretary of the Florida Concrete and Products Association, spoke about what the Florida organization is doing to promote ready mixed and concrete products in that state.

Needed: More Promotion

By way of introduction, Mr. Lenchuk asked the question, "Will there be a Ready Mixed Concrete Industry in 1968 so sales can be promoted?" Putting this same questioning approach another way, he suggested that members of the audience put the following question to architects and structural engineers of their acquaintance, "Will concrete be obsolete in 1968?" Mr. Lenchuk speculated a significant number would answer, "Yes,—providing it doesn't change."

The possible falling-by-the-wayside of concrete, as it is presently used, hinges upon two changing aspects of the economy, as Mr. Lenchuk sees it—the coming scarcity of labor and the development of new products and techniques.

If homes, offices, and factories are going to be built at reasonable prices a decade from now, the labor shortage will make it necessary that larger, easier-to-install sections be used.

For the present, the usual method of constructing forms and pouring foundations and floors is a competitive way to build. But the coming lightweight panels won't require the now-necessary sturdy foundations. And these same prefabricated panels, for those who are conditioned to want the traditional materials, will be formed to look like any of a number of the present materials used in construction.

Going on, Mr. Lenchuk asked the question, "What can the ready mixed concrete industry do about these threats?"

A part of his answer was for the ready mixed industry to go out and really promote its product— "not in 1968, but right now." Mr. Lenchuk suggested that the industry do two things:

● Material on display at the NRMCA public relations booth showed both sides of the story—the good and bad.

● Speakers for state and area associations were Thomas Durkin, left, H. G. Feraud, center, and Paul Lenchuk.

1. Establish an effective and professional promotion and advertising service which will be devoted to exploiting the use of ready mixed concrete wherever and however applicable. This promotion should be aimed at the architect, structural engineer, builder, and the public.
2. Establish a development of new products service which will chart out new uses for concrete, new methods for utilizing concrete, and above all, new concrete to meet new needs. In this respect, a service of this type would develop foam concretes, honeycombed lightweight concretes, new types of framing, better methods of placing, molds, and forms for architectural concrete, etc."

Mr. Lenchuk ended his talk by showing some of the promotional literature and informative pieces, prepared by the Florida Concrete and Products Association, to aid member producers market their products. Highlight of this was the showing of the association's new "Concrete Products Manual." Subjects taken up in this 270-page manual are ready mixed concrete, concrete masonry, prestressed concrete, and precast concrete. Mr. Lenchuk said that all out-of-state producers wishing to order copies of this extensive illustrated project, which is in loose-leaf form, may do so by sending $15 for each copy desired to the Florida Concrete and Products Association, P.O. Box 171, Winter Park, Fla.

Another of the speakers who nodded his head in the direction of increased promotion by ready mixed producers was George H. Paris, director of promotion, Portland Cement Association. Mr. Paris said, "1957 marked the first year in over a decade in which production of ready mixed concrete declined. This amounted to about 5 per cent . . . . The drop in production last year has caused some concern that led to greater emphasis on ways of increasing the sale of ready mixed concrete . . . . new markets need to be developed and old ones expanded and solidified. Sales promotion is one of the best ways of doing this."

All possible avenues of promotion should be investigated by the producer; these would include: radio, T.V., newspapers, direct mail, outdoor signs, magazines, local exhibits, open houses, and tours of the plant, giveaways, and membership in local organizations.

Another area of ready mixed operation that received considerable attention from speakers was one that should go hand in hand with sales and promotion—public relations.

Public Relations

Ralph H. Anderson, NRMCA treasurer and chairman of the public relations committee, made it clear how close these two subjects are to one another. He said, early in his talk, "I think the time has arrived for us to take an inventory of ourselves. If we do we will discover that we not only have the burden of marketing our product, which includes sales, promotion, advertising, etc., but also we have the additional problem of convincing the public of the basic integrity of each company . . . . A well-organized public relations program should tie in closely with sales and promotion work."

One of the foundation blocks of a good public relations program, according to Mr. Anderson, is a safety program. And evidence of his wholehearted backing of an effective safety program within his own operation came shortly after when, for the second year running, his company, Anderson Concrete Corp., Columbus, Ohio, was awarded the Class A safety award trophy.

Retiring President JohnW. Roberts also touched lightly on the subject of public relations. Speaking of unions and the need for a national right-to-work law, he said, "We recognize that the basis for a good public relations program is a human relations program. The attitude our customers and the public have towards us in a reflection of the attitude we have for our employees and they for us."

Mr. Roberts' second subject concerned the pricing of cement and how increases were being pushed on the ready mixed producer right at the height of his busy season—the time when the greatest quantity of orders were on his books, and often on his books at a fixed price. Thus, the producer was forced to absorb these increases without being able to pass them along to his customers.

His suggestion was that the cement mills "sell their product to individual ready mixed concrete producers on an annual pricing basis. Such a pricing basis would make price changes, if any, come at a period of the year when the number of contracts that a ready mixed concrete producer had were at a minimum."

Some of the aspects of a ready mixed company situated in the midst of a packed suburban community were taken up by William W. Duncan, Jr., assistant general manager of Clark Concrete Inc., Baltimore, Md.

● E. J. Nunan emphasized the order-taking era's gone. Concerns must sell.

● Past President Robert Mitchell presented this year's slate of officers.

● Vincent Ahearn's "The McClellan Investigation" ended the sessions.

Like a number of other producers, Clark Concrete was started on a plot of ground out in the open country, near a large city— in Clark's case it was Baltimore. But as the moving-to-the-suburbs trend took hold after World War II, the land surrounding the plant was slowly engulfed by residences. The more packed and settled the immediate area became, the more pressure Clark Concrete received from its neighbors—they objected to the dirt, dust, and other disturbances that often go hand in hand with a ready mixed operation.

Four years ago this resentment erupted into a petition to the court. As Mr. Duncan put it, "The case was long and many issues were discussed for once they put you in the fire, they pour the oil on."

After the first hearing, and inspection of the plant, except for nuisance—mainly dirt and dust—the court was on the company's side. But on this one point the court ruled against Clark Concrete. They then appealed to the court and asked for 90 days in which to make corrections.

This granted, the company began revamping its plant to reduce the objectionable dust and dirt. The company paved all operating areas of the plant; covered working, parking, and washing areas; landscaped all portions of the plant not in regular use; and converted an old fuel-oil truck into a street cleaner.

They also erected a building over the ramp for delivery of bulk cement and aggregates; encased all chutes; installed a dust collector; enclosed the mixer; and installed sprays around the charging end of the mixer and around the weigh batcher.

At the end of the 90-day period, the opinion read, "The court feels that it should comment upon the extreme neatness of the premises, the almost total absence of dust and dirt and the quietness with which the operation is being conducted."

Ready Mixed in Pavements

The subject of ready mixed concrete and the highway program received a goodly bit of attention, both in the general and technical sessions. As this program moves into high gear, an increasing amount of business can be expected to flow to the ready mixed industry. According to last year's NRMCA survey, of the totals reported for 1956, slightly more than 10 per cent of the industry's production went into streets and highways.

A generalized statement of what the highway program is, what it will entail dollarwise, and how it is moving ahead was presented by F. C. Turner, deputy commissioner and chief engineer, Bureau of Public Roads.

The conclusion reached by the engineering division of NRMCA, after taking a survey of practices in different states for handling tested cement, is that, too often, unrealistic emphasis is placed on using pretested and approved cement. This only adds to the cost of concrete and restricts its use.

It could hardly be said that the first two panelists discussing ready mixed concrete in pavement construction were wholeheartedly in favor of its use.

Joseph J. Waddell, project materials engineer for the consultants to the Illinois State Toll Highway Commission, quoted the results of a poll he had circulated to 25 engineers, 20 of whom replied. The results for central mix concrete weren't too detrimental—only 2 out of the 20 answering would not permit central mixing for pavements and 2 others were unwilling to give an opinion. The other 16 answered favorably, but put reservations on the method by which it was hauled to the site.

When it came to their answers on hauling in truck mixers, the replies were generally on the unfavorable side. Only one gave an unqualified yes; nine answered with a no; and another nine qualified their answer.

In attempting to summarize the negative feelings of engineers to transit mixed concrete, Mr. Waddell said, "Although the management wants to provide control, there are too many individual truck drivers, whose own ideas influence the concrete in the truck.

"Probably it all boils down to the fact that there is no control of the concrete between the time it leaves the plant and the time it arrives at the site."

R. A. Lonier, engineer of materials, Illinois Division of Highways, by implication, voiced some of the engineer's objections to using ready mixed concrete in pavements. He pointed out some of the concrete requirements for pavement work: 1 to 1½-in. slump, uniformity of mixture, placement—spread across in front of the spreader rather than deposited in piles, and continuity of production.

The only member of the panel who was in the ready mixed business, Robert A. Hummel, Consumers Company, admitted that there were problems—but went on to say that the ready mixed producer can deliver a good product to the job site.

As Mr. Hummel sees it, the problems aren't so much in the mixing

or in the delivery, but, rather, they develop once the load is at the job. Two of the specific problems he brought up were the fact that you can't too often drive a truck across the new grade to get the material to the road bed, and you can't expect the worker to take the low-slump concrete to the spreader.

It was about at this point in the panel discussion that W. F. Mengel, F. F. Mengel Company, Wisconsin Rapids, Wisconsin, stood up at his chair in the audience and said that quality concrete for pavements could be delivered by a ready mixed producer. His company was doing it. He also mentioned that in a contest, a strip of pavement using his concrete had just missed first place by a very thin margin.

NRMCA's Research

A summarization of the final report on the NRMCA's cement investigation, which will be published at the annual meeting of ASTM in June, was presented by Stanton Walker, director of engineering for the association.

Besides corroborating previously published data on variations in concrete strengths caused by variations in cement, whether purchased from different mills or from the same mill at different times, the association's test results showed a substantial correlation between concrete strengths and mortar strengths when both are made from the same cement.

Mr. Walker went on to state that because there are so many factors affecting the strength of concrete and also that strength alone does not determine the ability of concrete to perform, he would like to see instituted a prescription-type specification for concretes.

"The prescription should be based on properly controlled laboratory tests which demonstrate that concrete of the required quality will be produced. These tests should reflect minimum strength-producing properties of available cement, minimum qualities of aggregates meeting specifications, and maximum slumps of concrete which are permissive. They should not reflect results of special tests made with better than average materials and lower than average slumps.

"Therefore, I would establish classes of concrete based on a minimum cement factor and maximum water-ratio, range in slump, maximum size of aggregate, range in aggregate proportions and so forth which have been shown to produce the required strength under approximately minimum conditions. Then I would see to it that these limitations are adhered to."

In a report on the NRMCA laboratory's continuing study of admixtures, Delmar Bloem listed some of the conclusions reached from recent projects comparing cold-weather curing effects on concrete and mortar strengths. Concrete test specimens contained zero, two, and four per cent calcium chloride and were cured under four curing conditions. Mortars compared were: without admixtures, with two and four per cent calcium chloride, and with two different dosages of two proprietary admixtures. (Admixtures used were implied as being "anti-freeze" agents.) The mortars were subjected to three different curing conditions.

The overall indications of the two sets of tests seem clear:

1. Calcium chloride produces worthwhile benefits where early strength development is needed, particularly to reduce the time during which protection is required in cold weather.

2. Except where concrete or mortar is likely to freeze almost immediately after placement and favorable curing will be applied later, there would appear to be no advantage to using 4 percent calcium chloride instead of 2 percent.

3. The two expensive proprietary admixtures had no advantage over ordinary calcium chloride so far as strength of mortar was concerned.

4. In summary, both proprietary admixtures appeared to perform similarly to, or less effectively than, calcium chloride, but at a cost of several times as much.

A side—and unexpected—result showed up while the laboratory was continuing with its studies of flexural strength of concrete. Compressive strength depends somewhat on the maximum size of aggregate particle used in the mixture. Initial results tend to give the conclusion that maximum compressive strength is obtained when the maximum size of the coarse aggregate is somewhere between $\frac{3}{4}$ and $1\frac{1}{2}$ ins.

Numerous other talks and test data were presented to the NRMCA members and guests during the convention sessions in Chicago. Next year's convention will be held in New Orleans, Feb., 16-19.

● Turn about is fair play, they say. Mrs. Bernard Udelson, Acme Ready-Mix Concrete Co., Cleveland, Ohio, sat for her caricature (above right). Then to even up the score for whatever justice or injustice had been done, she took over the chair behind the lights (above left) and sketched CONCRETE's caricaturist, Lenn Redman. And there is a resemblance.

Harry H. Edwards

The Next Five Years of Prestressing

Harry H. Edwards gave this speech at the Ohio Ready Mixed breakfast during the NRMCA convention.

Where will prestressed concrete go in the next five years and how will this new concrete development affect the ready-mixed concrete industry? Will prestressing grow to become one of the major divisions in the building industry? I am sure that all of you would like to know what type of firm will be producing prestressed concrete five years from now and also to know how prestressing may fit into the ready-mix operation.

We are living in a technical age that is progressing very rapidly. Several fields of science and engineering such as electronics, neucleonics, physics and chemistry are advancing so fast that it is difficult to keep the products coming off the production lines from becoming obsolete. Prestressing places concrete within the group which we might call the glamour industries that are showing the evidence of new and fantastic developments. Prestressing today is in that fortunate position of being considered a growth industry at a time when the sales charts of so many businesses show a declining trend.

Before making any predictions on the future course of prestressing, let me first give a brief past history and show some of the current successful applications of prestressing.

The theory of prestressing is almost as old as reinforced concrete itself. An American in 1895 took out the first basic patent covering the design of prestressed concrete. No commercial application was made in prestressing at this time. In the early 30's, prestressing was used quite successfully to construct large diameter concrete tanks. These tanks were built in 100 foot diameters and upwards using lightly reinforced concrete walls with or without a thin concrete dome over the tank. The prestressing operation consisted of winding the tank on its outside with a prestressing wire, which was tensioned by drawing it through a wire-drawn die as the entire reel of wire and die traveled around the tank on a car held from the top wall of the tank.

Towards the latter part of the 30's, considerable interest was aroused in Europe on both post-tensioning and pre-tensioning of concrete. Europe at this time experienced a shortage of structural steel. This scarcity of rolled sections gave a great emphasis to the new industry all over Europe. This initial start was continued and expanded during and after the war to the point that today prestressed concrete is common construction in all countries of Europe.

An active interest in prestressed concrete in the United States started in 1948. During this period, one warehouse floor was prestressed in Chicago. Another outstanding installation was the Walnut Lane Highway bridge in Philadelphia. Both of these installations received wide national publicity.

In 1952 and 1953, the use of seven wire strand was proposed for pretensioned concrete to replace the single wires which had predominated the European pretensioning picture. The many advantages of the strand were soon recognized in this country.

The seven wire strand became popular during the introduction of the Double "T" roof and floor slab. By concentrating seven wires at one central point, it was possible to reduce the mass of concrete required; thus the thin stem Double "T" produced was successfully developed. Today, there are over 100 manufacturers producing the Double "T" roof and floor slabs all of whom are using the seven wire strand for their prestressing steel. The Double "T" provided a means whereby the industry could standardize on cross sections and thereby enter into the mass production phase.

Prestressing of bridge members followed the introduction of the standard building members very quickly. The state of Florida quickly selected a standard cross section of bridge girder to be used throughout the entire state. These members were permitted in alternate bids against rolled steel sections. The prestressors were successful in obtaining the low bid. The early success on the acceptance of the product and its low price induced firms all over the state to enter into the prestressing of bridge members. Today, the bridge industry is using prestressed concrete in Florida almost exclusively in spans below 80 feet.

While the development in pretensioned bridge girders was progressing, there was a parallel growth in the use of prestressed piles used on highway bridges and overpasses.

The future of the prestressed concrete industry must be based on the quality of the product it is possible to produce and on its relative cost when compared to competing materials. The superior qualities of prestressed concrete are now being recognized by the engineering and architectural professions. They recognize its superiority on strength, resiliency, crack free construction, and speed of construction. On a cost basis, the established industry has no difficulty in competing against rolled structural shapes for bridge construction. It also has an open field on certain applications of long piling used in bridges, overpasses and dock work. Many other standard sections such as Double "T" joists and flat slabs are already very close to the price of

(*Continued on page* 38)

The Past, Present, and

Region I, V.P.
Harvey H. Black

Region II, V.P.
Franklyn Williamson

Region III, V.P.
Max H. Miller

Region IV, V.P.
Elmer A. Peterson

Chicago's Sherman Hotel opened up its doors to 1,117 NCMA members and guests during the 38th annual convention, Feb., 17-20.

Though the convention's theme was "Blueprint for Progress — A Look Ahead," all three — the past, the present, and the future — were given prominence during the four days of meetings.

The past, what has been accomplished with block, was indicated in the many references to historical data presented by speakers, such as block production statistics for years past, the growth of the National Concrete Masonry Association, and the many examples of the uses of block presented in slide form at the sessions.

The present, which, of course, is closely tied in with the past, was evident throughout the sessions, particularly during the panel discussions, such as the all-day session on autoclaving, and the discussions of operating problems and effective selling to the school market.

The future, conjecture, was often expressed in the form of questions and tentative answers — questions on the near-future and long-range-future needs of the construction industry, and conjectural answers on how the block industry can satisfy these needs; questions on how to reduce within-plant costs, and answers by manufacturers and producers who were acquainted with coming trends in automation; and questions in the form of a poll sent out to producers just prior to the convention, and answers in the form of a tally of the response to the questionnaire.

Shortly after the convention opened, outgoing President Philip Paolella introduced the new NCMA officers who will be holding office during the first full year of NCMA operation under the new regional organization program. Moving up to the presidency is Carroll Strohm, Jr., Nashville Brecko Block & Tile Co., Nashville, Tenn. Mr. Strohm had held the post of secretary-treasurer of the association for the past nine years. The new secretary-treasurer is Jack Crabbs, Austin Crabbs Incorporated, Davenport, Iowa.

Six regional vice presidents also assumed office: they are Region I—Harvey H. Black, Domine Builders Supply, Rochester N. Y.; Region II—Franklyn L. Williamson, Holloway Concrete Products Co., Winter Park, Fla.; Region III—Max H. Miller, United Cement Products Co., Wichita, Kas.; Region IV—Elmer A. Peterson, Rocklite Products, Ventura, Calif.; Region V—R. L. Kennedy, Dakota Lime & Brick Co., Rapid City, S. Dak.; and Region VI—Carl F. Spickelmier, Spickelmier Co., Indianapolis, Ind.

Incoming directors are: Region I—Albert J. Faber, William C. Homer, T. K. Nitterhouse, and H. C. Quaritius, Jr.; Region II—George W. Katterjohn, Hugo Quillian, and Forrest Ladd; Region III—William F. Smith, William B. Hovey, Leonard Jones, R. A. Utiger, and Cedric Willson; Region IV—Otto Buehner, Harold C. Lutes, and M. R. Gibbons; Region V—R. L. Kennedy (also serving as vice president from this region), Russell B. Eichelberger, Harold L. Flittie, and U. S. Lewis, Jr.; Region VI—Paul F. Bronson, Warren Fellabaum, Jay C. Ehle, and Emil Fehr. The two directors appointed by the president are Walter Horn and Verne Frese.

Two of the highlights of the convention were the speech, given at the Tuesday luncheon, by Frank Lloyd Wright and the presentation of a citation at Wednesday's banquet to Elmer W. Dienhart. The citation, in the form of a scroll, was given to Mr. Dienhart in recognition of his 20 years of service to NCMA as its executive secretary.

The Past

While certainly not all of outgoing President Paolella's annual report,

Future of Block

● Retiring president Paolella congratulates incoming president Strohm.

Region V, V.P.
R. L. Kennedy

Region VI, V.P.
Carl Spickelmier

● Majority of new NCMA regional officers gather together. They are (top row, from left): W. Hovey, W. Horn, C. Spickelmier, R. Kennedy, O. Buehner, R. Utiger, and E. Fehr. Second row: H. Lutes, V. Frese, J. Pennachetti, E. Peterson, H. Flittie, F. Ladd and A. Faber. First row: P. Bronson, M. Miller, W. Fellabaum, W. Homer, W. Smith, L. Jones, H. Black, G. Katterjohn and R. Eichelberger. Those missing are: T. Nitterhouse, H. Quaritius, Jr., F. Williamson, H. Quillian, C. Willson, M. Gibbons, U. Lewis, Jr., and J. Ehle.

"Two Per Cent for Survival," dwelt on the past of concrete masonry, his opening remarks gave a brief capsule of the vigorous growth that has taken place in the industry. He said. "The concrete block birthdate was around the beginning of the century, and from these early years of 150 block per day, we now have plant facilities that can produce concrete masonry units at the rate of 1,000 block per hour almost by automation."

A slide, presented by Mr. Paolella, showed the block production climb from approximately 1 billion 8 x 8 x 16 equivalents in 1917 to a high of slightly over 2¼ billion units in 1956. (1957's production tapered off slightly to a figure near 2 billion units, according to the chart.)

Throughout this period of more than a half century since block were first manufactured, there has been a constant uphill struggle to gain acceptance for, and recognition of this building unit. Pretty generally the fight for block used as back up has been won, but the fight still rages for its use on exteriors.

Frank Lloyd Wright, in his speech to the convention, mentioned that he had first used block in 1921 in a house at Pasadena, Calif. And since then he has used block, quite freely and openly, in many of his houses. "Concrete block," he said, "is something that any 'child' can build with; block requires little labor; it is technically sound and safe. The substance of modern building is steel and concrete."

William Brubaker, associated with Perkins & Will, Architects, paraphrased Frank Lloyd Wright's thesis of the honest use of materials. He said, speaking of the use of block in schools, "It seems that we have promoted concrete masonry for quite a few years . . . . . We see it as a desirable material. . . . An interesting thing has happened—that is dealing with school people, with boards of education, with superintendents of schools, and teachers, we have found that in just the last few years an interesting fact—that concrete block has now gained and now enjoys a great acceptance among all of those people. . . Now we find that people enjoy and respect the textures which we approve by using concrete masonry."

But Mr. Brubaker cautioned, "We have not used concrete block for reasons of cost primarily, and I think it would be a mistake for you (producers) to promote your material on a cost basis primarily; because it has many merits."

Another plug for the acceptance of block was mentioned in the welcoming speech by George Ramsey, Chicago's Building commissioner. Mr. Ramsey noted that his house was built with block used on both the exterior and interior. He said that his house was colorful and attractive to live in, and, so far, he had not noticed any condensation.

Four of the distinctive newer uses for block, detailed in talks at the con-

● Two men of a Spickelmier field crew, with the aid of dollies, each equipped with a hand operated winch, transported this slab of Rapidex block from the edge of the deck and are about to lower it into place.

● Camosse Bros., Inc., delivered more than a million block to pave slopes below a number of bridges on the Massachusetts Turnpike. Most of the units were solid 6 x 8 x 16, but some were half chimney block.

NCMA Convention

(*article begins page* 32)

vention, were the use of multiple Rapidex block compressed and grouted together to make floor and roof slabs. Carl Spickelmier gave a quite-extensive description of how these slabs are manufactured at his Indianapolis plant.

Another of the newer concrete block uses detailed was the 1,000,000 slope block market developed by Camosse Bros., Inc., Auburn, Mass. Geno Camosse told how his company was delivering this quantity of block, in two sizes, 6 x 8 x 16 and half-chimney block, to cover the slopes underneath 20 bridges in his area. The solid 6-in block were used to cover most of the surfaces and the half-chimney block formed the gutters along the sides.

The third newer use of block presented was a description of the prestressed, arched roof of block that covers a Kroger supermarket at Flint, Mich. (See the coverage of this in the December, 1957, issue of CONCRETE.)

NCMA's new Shadowal block was also given considerable play during the sessions. According to Bill Markert, director of promotion, between 125 and 150 NCMA member producers are now manufacturing and marketing this unit.

The Present

Like a continuum, the present is irreconcilably linked with the past. So markets developed in the past, such as Rapidex, slope block, and prestressed machine-made block assemblies, will continue as markets in the present.

But in order to maintain these markets on into the future, and expand them where possible, continued attention should be paid to present-day problems of production, maintenance, and product development.

Two of the statements at the technical sessions summed up a couple of the prominent approaches to increasing plant production. Paul Bronson, Best Block Company, Milwaukee, said, ". . . . the automatic plant . . . seems to be the topic of conversation today: automation on the mixing floor, automation at the machine, automation to the kilns, and automatic cubing." Cedric Willson, Texas Industries, Ft. Worth, said, "Probably the surest way to increase volume in earnings is for the producer to find new salable products that he can make with machines and plant facilities he now has."

CARBONATION • Henry Toennis told of some of the conclusions he had reached so far while conducting the NCMA's continuing study of carbonation of block. Mr. Toennis listed these conclusions as: (1) CO_2 treatment should be commenced immediately after curing; (2) temperatures should range above 150°F. (treatment at 100°F. had no effect, and Mr. Toennis believed it was because the moisture content of the block retarded the treatment); (3) a low CO_2 concentration introduced at temperatures above 150°F. will reduce shrinkage approximately 40 per

● These are the results of Paul Bronson's tests on mixing time, conducted at Best Block Co., Milwaukee.

Compressive Strength Test Results

Sand and Gravel Agg.			Expanded Slag Agg.
Mixing Time	No Dri-Mix Time	2 Min. Dri-Mix Time	2 Min. Pre-wet Time
2	1440	1390	1150
3½			1220
4	1600	1590	1310
5½		1370	
6	1460	1440	1260

Effects of Dri-Mixing (S&G)

Mixer Type	Dri-Mix Time (Min.)	Compressive Strength (%)	Number of Batches
Spiral	0	105	3
"	1	99	6
"	2	101	20

Effects of Pre-Wetting (Exp. Slag)

Mixer Type	Pre-Wet Time (Min.)	Compressive Strength (%)	Number of Batches
Spiral	1	104	5
"	2	99	17

cent; (4) complete carbonation does not make the block completely stable—the resultant shrinkage, though, is reduced by 50-60 per cent; and (5) carbonation of block, whether it's with a high or low CO_2 concentration, is a slow process.

MIXING TIME • In an attempt to increase the productivity of mixers, Paul Bronson ran some tests on equipment at Best Block Company in Milwaukee. His normal cycle of mixing in a spiral mixer prior to the tests was noted as: charging aggregate and cement, 30 seconds; dry mixing, 2 minutes; addition of water, 40 seconds; mixing, 5 minutes; and emptying, 30 seconds. His total elapsed time was 8 2/3 minutes. Mr. Bronson reasoned that of the various portions of the mixing cycle, only two could be reduced—the dri-mixing (or in the case of lightweight aggregate—pre-wetting) and actual mixing times. To test the possibility that either or both of these time elements could be reduced, he ran some batches through and then ran compressive strength tests on the block produced. The results, using sand and gravel in one series and expanded slag in another, are given in the charts.

Mr. Bronson had three conclusions and one caution to offer: (1) mixing time of two or more minutes, for the equipment tested, had little effect on the strength of the block; (2) nothing is to be gained from dri-mixing of sand and gravel aggregate and cement; (3) pre-wetting of expanded slag aggregate for two minutes achieves little value over pre-wetting the aggregate for just one minute. His caution was that it would still be prudent for each individual block producer to run his own checks and tests.

FORUM ON PLANT OPERATIONS • Plasticizers, spreading of block at the top as it comes off the machine, and automation were typical of the subjects aired during this audience and panel discussion period.

On plasticizers, a number of the audience said he had used one and had encountered troubles with strength. When he discontinued its use and went into an air-entraining agent, his block's strength was increased 60 per cent. Panel member Jim Fountain, on the other hand, said that he had used one successfully with air-entraining cement to gain texture.

On block spreading at the top, a number of reasons and possible solutions for this problem were suggested. Most who took up the discussion believed the reasons were: not enough presetting time, or too wet a mixture so the water tried to evaporate too fast, or too much air so that the air tried to expand. Dale Cobb suggested the possibility that the producer's kilns were too cold.

On moisture meters, all who discussed their use were in agreement that here was a valuable adjunct to control and uniformity. Producers from particularly warm locales and others using aggregates that varied considerably in moisture content cautioned that checks would have to be run and adjustments made periodically throughout the day.

On automation, discussion was mainly in the form of questions directed at Paul Thomas, Superlite Builders Supply, Phoenix.

Prefacing his brief description of the facilities, Mr. Thomas said, "Automation gives control—a better block." He then mentioned that one Superlite plant had operated for five years without a mixer man; this is a one-machine plant that has a moisture meter and automatic mixing.

Another of Superlite's plants has automatic cubing, such that one man can handle the 60,000 block per shift that come off the six machines. Mr. Thomas stated that they used binder twine to tie the cubes.

HIGH PRESSURE STEAM CURING • A whole day was devoted to autoclaving, Thursday, Feb. 20, the final day of the convention. In a show of hands, only some 27 members of the audience indicated they were using autoclave curing at present, but the interest in this subject could be measured by the number of producers, manufacturers, engineers, guests, and employees—estimated in the neighborhood of 300—who stayed for this technical conference.

R. E. Copeland, NCMA director of engineering, in opening the conference, said, in effect, that the industry was not being told what sort of curing to use; but that the industry, and NCMA, would be remiss not to develop information and share knowledge.

▶ Corrosion, which at the approximate temperature in an autoclave (360°F.) proceeds at a rate 9 times faster than at 180°F., was the topic of the first discussion panel. The theory was offered that corrosion is caused, in part, by soluble sulfur in aggregates—some plants suffer far less yearly damage than others. One member of the panel mentioned that his maintenance costs on racks alone came to a yearly figure of $25,000.

In an attempt to find a coating that would substantially reduce this eating away of the metal racks, and, at a slower speed, the autoclaves themselves, W. J. Brull, Zenith Concrete Products Co., Duluth, said that his company had tried 27 different coatings, all of which had broken down after 50 cycles. At present his company was using a dip tank filled with a heavy cream solution of fly ash (40 per cent) and cement (60 per cent). First, they would get the

Text of the Citation to Elmer W. Dienhart

The officers, directors, and members of National Concrete Masonry Association take pleasure in presenting this citation of appreciation to

Elmer W. Dienhart

In commendation of his able leadership and devoted service to the National Concrete Masonry Association as its Executive Secretary from 1937 to 1957.

As one of the pioneers in the concrete masonry industry, Elmer W. Dienhart has contributed greatly by his unceasing efforts in shaping this expanding association from infancy to maturity.

His qualities of personality and character have gained the confidence and esteem of all who have labored with him.

Presented this 19th day of February, 1958.

Benjamin Wilk, *chairman citation committee*
Philip Paolella, *president*

● Jim Fountain and Verne Frese were two of the panelists on the Forum on Plant Operations.

● President Carroll Strohm, Jr., left at speakers table, and Norman Ross listen to Frank Lloyd Wright. Mr. Wright mentioned that he first used block in a group of houses he designed back in 1921.

● Dr. George Cline Smith, F. W. Dodge Corp., mentioned that the last half of 1958 should see an upswing in general business, providing pessimism is held in check.

● NCMA executive director Walter Underwood outlined the probable benefits of the new regional organization program.

NCMA Convention

(Article begins page 32)

racks warm, then dip them in the tank, and then put them back in the autoclave.

One coating mentioned as giving good protection to the autoclave was Apexior No. 1, produced by the Dampney Company, Hyde Park, Boston 36, Mass.

Two other coatings, said to give better than average service, were Bisonite Green, Bisonite Co., Inc., P.O. Box 84, Buffalo, N.Y., and Superservice Vitumastic, a product of the Koppers Co., Tar Products Division, 122 S. Michigan Ave., Chicago.

Racks made of stainless steel and aluminum have been tried, and with good results, but their prohibitive initial cost has ruled against them for now.

▶ Silica Dust and the possibility of silicosis forming in the lung tissue of production employees was taken up by Herbert T. Walworth, director of industrial hygiene, Lumbermens Mutual Casualty Company. He suggested the following controls: (1) use water sprays to keep silica dust from becoming air borne in hazardous quantities; (2) enclose and isolate chutes through which silica flour passes; (3) use exhaust ventilation around chute openings; (4) institute and maintain good housekeeping practices; (5) require personal protection—respirators—where necessary; and (6) require X-rays at periodic intervals.

▶ Curing Cycles will vary somewhat with plant conditions, but one of the important points brought out was that with adequate controls and precise timing, three complete cycles were possible in a 24-hr. period. Following the holding period at low temperature, this approximate scheduling was suggested to achieve the three complete cycles: 1½ hrs. to get temperature and pressure, 5 hrs. at constant temperature and pressure, and ½ hour or less for blow down.

▶ Single Phase Versus Two-phase Systems, which is better, was a still-not-completely-settled question at the end of this discussion. Initial costs for a single phase plant to cure 15,000 block per day were estimated roughly as $125,000. For a two-phase plant, costs were estimated at between $90,000 and $95,000, but the handling and production costs are higher—more cement is needed, and the block have to be handled two extra times.

▶ Autoclave Loading and Unloading Methods varied considerably from plant to plant—some producers loaded trains with cubed block, others loaded trains with contour racks filled with block, and still

● Dale Cobb led the discussion on autoclave doors, gaskets, and general maintenance.

● Winners of NCMA safety plaques and certificates of achievement crowd around pretty Kay Bowman, a Chicago model. Plaque winners, from left, are Vic Paturzo, V. Paturzo Bro. & Son, Inc.—Class A; Herb Geist, The Geist Builders Supply Co.—Class B; and Frank Lowell, Marble Face Blocks, Inc.—Class C. Certificate winners are in rear.

others used fork-lift trucks. Some plants had autoclaves with a door at each end; others just one door; some winched the block in and out of the autoclave. And one producer used a hydraulic ram.

Besides the descriptions of plant facilities and a brief mention of some of the times involved (17 mins. for winching a 15-car train of cubed block into autoclave, 35-40 mins. for a train load of block on racks), two specific statements stood out: (1) Harry Easterly, Concrete Pipe & Prods., Inc., Richmond, Va., said that though his equipment had a door on each end, he had discontinued the use of the second door and (2) as a producer moves away from using lift trucks and goes in the direction of automation, he can save as much as 2 to 2½ hrs. per cycle, possibly enough to give a third curing cycle per day.

▸ Doors, Gaskets, and General Maintenance were taken up one by one by discussion leader Dale Cobb. He first categorized the types of doors—ones that have an expanding or contracting ring, or an exterior ring that locks; ones that rotate or can be raised or lowered, and ones that are bolted. "Producers," he said, "should get manufacturers to give a delivered price." Most of the door types mentioned open in a range of from 2 to 5 mins. with the exception of bolted doors, which, using pneumatic tools, take from 9 to 12 mins. to open and from 15 to 20 mins. to close.

On door selection, Mr. Cobb suggested the producer investigate its construction; acceptance by insurance company; ease of operation; cost, safety, and maintence of gasket; and the door's safety devices.

▸ Considerations in Determining Autoclave Size, Layout, and Details were discussed by James B. Maher, engineer, Chicago Bridge & Iron Company. His seven factors determining the selection of autoclave diameter and length were: "(1) the number of block to be cured; (2) condition of existing racks and handling time required to transport such racks from block machines to autoclaves or waiting kilns; (3) the cost of new racks with larger capacity; (4) the length of curing cycle, including loading time, pre-setting time, actual high pressure curing time, and unloading time; (5) total steam consumption and peak load requirements; (6) available plant space; and (7) future expansion plans."

▸ Boilers and Piping: some of the points brought up during this talk, by R. C. Carlson, St. John, Platt and Carlson, Consulting engineers, were classes of boilers—fire tube (can produce up to 18,000 lbs. of steam per hr.) and water tube (can produce up to 40,000 lbs. of steam per hr.); types of fuel—gas, oil, or coal; water treatment—zeolite to reduce hardness but most water needs further treatment; piping—as short as possible and sufficiently strong to withstand 150 lbs. pressure, with particular attention to those lines that come in contact with steam after blow down; and valves and fittings—stainless steel, stronger than just the minimum.

▸ Properties of Autoclaved Units: panelists quoted test figures to prove that autoclaved units shrink 40 to 50 per cent less, depending upon the aggregate used, than similar units cured at high temperatures and atmospheric pressure.

Strength in autoclaved units is not so much of a problem. The panel, instead, considered the question of how much cement a producer can replace with less-costly pozzolans and still provide units that meet strength specifications.

Absorption, particularly in lightweight units, was a problem with some autoclave users. Also it was mentioned that autoclaved units are more brittle.

▸ Need for Crack Control Measures:

NCMA Convention

(*article begins page* 32)

panelists who took up the subject of the size and quantity of cracks in structures using their autoclaved units said that the quantity was almost negligible. Reinforcement should be used in the first joint over openings; and care should be taken with long spans, areas of settlement, areas of temperature variation between steel and concrete, chases, and control joints.

The Future

As the past and present of concrete masonry were closely linked together, so, also, is the future. What comes depends upon many factors, among them present-day research into new methods of production and products, and continued promotion to keep the buying and building public aware of and specifying concrete masonry, in whatever form it takes.

That the producers, themselves, were somewhat optimistic was determined from a questionnaire sent out just prior to the convention. In contrast to the close to 2 billion, 8-in. equivalents produced in 1957, the average for those answering was 3¾ billion units as the nation-wide production figure 10 years from now; the spread of replies ranged from a low of 3 billion to a high of 7½ billion units.

Most of those who answered felt they predominately would be marketing an 8-in. unit then, similar to the standard unit that provides the bulk of a producer's business today. A number of producers, though, did mention that both a lightweight 12-in. and 16-in. unit would gain in acceptance and prominence. Also, a portion of those replying to the questionnaire noted that larger, factory-fabricated panels and precast sections would increase in importance.

Retiring President Philip Paolella voiced this same preoccupation with panels, as did a number of the other speakers at the convention. Mr. Paolella said, "We will find ourselves doing more phases of building construction in our plants. There will essentially be an increase in the migration of skilled craftsmen from the job site to the factories in our concrete industry as it has already occurred in many other industries.

"We will have raw materials fed to our plants, blended together, moulded, cured, and packaged, all by automation. These units will be stabilized, architecturally treated, and plant assembled into panels and wall sections of every size and description."

The value of continued promotion, advertising, and publicity was summed up in a quotation of William Markert's, early in the convention, "You know, there are 72 waterfalls in the world higher than Niagara, yet how many of these waterfalls can you name?"

Cleveland will play host city to next year's NCMA convention—the dates, Jan. 12-15.

The Next Five Years of Prestressing

(*Continued from page* 31)

structural steel and in another one or two years, technical advances within the industry will enable the producer to meet or even underprice steel.

Where does the ready mix concrete producer fit into the picture of prestressing? Today, probably 90% of the firms manufacturing prestressed concrete are in the ready mix business. Between 90 and 95% of the concrete yardage used in prestressing comes from ready mix trucks.

As to whether or not the use of ready mix stays in the prestressing picture in the future depends on several factors. Today, the prestressing industry is producing a concrete having a 28-day strength of between five and six thousand psi. It is using a slump of 1 to 3 inches. These strengths and slump ranges are about at the limit that can be handled by the existing ready mix facility. If the slump requirements should be changed to a zero slump or if the strength specifications were to be raised to seven or eight thousand psi, then considerable modifications would have to be made in the ready mix trucks.

The prestressing industry today is viewing the pan type mixer with the hopes that they may have found an answer to better mixing equipment and a reduction in cement ratios. This extreme interest in the pan mixer will undoubtedly lead to extensive research and development in improving the truck-mounted mixer to the point where it can produce an equally good mix and also be able to discharge a low slump concrete.

A great many ready mix firms today are using the excess truck facilities to service their own prestressing plant or a neighboring prestressing plant. The typical ready mix operation will have its peak demands in the morning hours. This would free trucks during the afternoon to service prestressing facilities. One large firm is currently doing all of their pouring from ready mix concrete trucks after five-o'clock in the evening in order to take advantage of idle time of equipment.

The ready mix industry very often is the ideal firm to enter into prestressing. The larger firms can provide the large capital requirements needed for a prestressing plant serving the bridge field. As a rule, they are already set up to service the large daily requirements of concrete. Usually, the prestressing operation does not put any undue burden on the existing facilities of a ready mix plant.

The ready mix operator is usually well qualified for selling an additional concrete product into the building field, therefore, it is logical to expect that the future prestressing plants will be owned largely by ready mix firms.

For a prediction of five years hence, I would say that:

1. Approximately one-half of the large ready mix firms of today will be in prestressed concrete.
2. Seventy per cent of the highway bridges and overpasses in five years will be built of prestressed concrete.
3. Prefabricated buildings using prestressing for walls, columns, floors and roofs will be more predominant at that time than is the steel prefabricated building today.
4. Sometime during the next five years the prestressing industry will surpass the structural steel fabrication industries in dollar volume of sales per year.

If all of these predictions come true, we can be assured that prestressing will be one of the great industries in this country.

NEWS

METHODS

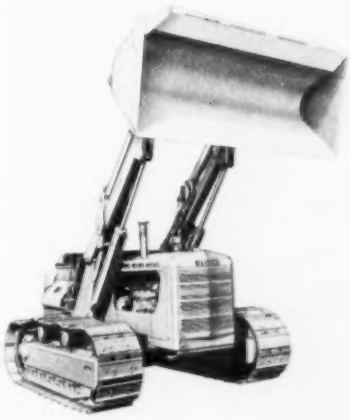
EQUIPMENT

TOOLS

MATERIALS

Oliver Corporation Adds New 2¼ Yard Bucket Capacity Loader to Its Line

A new loader with a 2-¼-yd. bucket capacity has been announced by The Oliver Corporation, 19300 Euclid Ave., Cleveland 17, Ohio. Called the OC-156, it is a completely integrated unit, with the loader matched to the full capabilities of the powerful 110 h.p. tractor, according to the manufacturer. The loader is rigidly mounted so that the loads are taken directly on the subframe, and the new, low-profile design provides full visibility and low center of gravity for quicker, fuller loading. Length of track on the ground is 87-⅛", with 2788 sq. in. contact area to give greater stability for fast and heavy loading for which the OC-156 is especially suited. An important feature, Oliver points out, is the fully protected design of the loader. The hydraulic pump is located under the radiator and is engine mounted. There are no hose connections to



come loose, no exposed PTO. Deep, full-length steel guards protect the six lower track wheels.

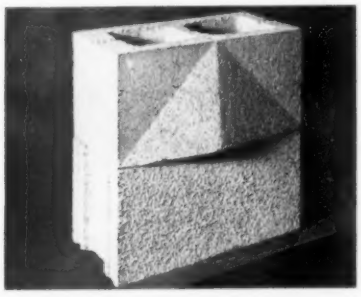
Enter D41 on Inquiry Card

FROM THE MANUFACTURER

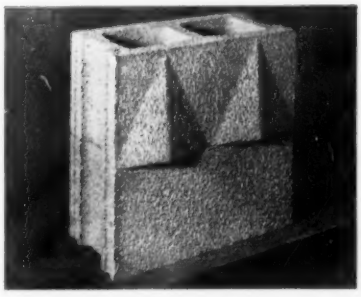
All Producers Can Make Besser Hi-Lite Block

Hi-Lite block, an attractive design block for both exterior and interior walls, has been introduced by Besser Company, Alpena, Mich. Based on the conventional 8" x 8" x 16" masonry unit, Hi-Lite block features single and double raised pyramid facing designs that enable architects or builders to create a myriad of patterns and dramatic architectural effects.

Hi-Lite block will give blockmakers a new competitive block for the building industry. Its sculptured appearance adds glamour to ordinary



block and should greatly stimulate the demand for concrete masonry units. Hi-Lite block can be made from lightweight or dense aggregate as fast as standard block. With only a few additional mold parts, blockmakers will be able to gain full production of Hi-Lite block in a matter



of minutes, the company states. And the same set of mold parts fits all standard wall widths.

Hi-Lite block mold parts are available to all block plants. Literature and complete information is available from Besser Company.

Enter D42 on Inquiry Card

How to Figure Color for Ready Mixed Concrete

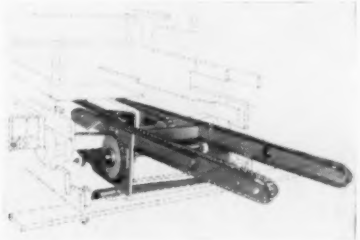
Frank D. Davis Co., 2704 Santa Fe Ave., Los Angeles 58, Calif., has recently produced a folder, "Colors for Ready Mixed Concrete", that is available to all ready mixed concrete producers requesting it.

An interesting fact about the folder is a layover key sheet it contains which gives the quantities and combinations of color to use per cubic yard of concrete to produce the shades of sand, suntan, terra cotta, yellow buff, goldenrod, canyon red, tile red, brown, nile green and slate.

Enter D43 on Inquiry Card

Powered Front Conveyor Designed by Bergen

Featuring a revolutionary new Harmonic Drive, the Bergen Powerized Front Conveyor has been especially designed to step-up the per-



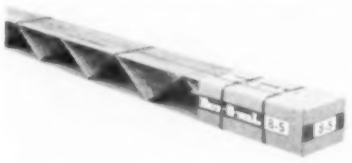
formance of block machines that do not have front pallet feeders. Replac-

ing a roller conveyor in front of a block machine, the Powerized Front Conveyor carries each pallet 19 inches per cycle, insures pallet clearances and eliminates block breakage. The Harmonic Drive slows down the pallet receiving chain to almost a dead stop at the moment the loaded pallet is deposited. Its gentle accelerating and decelerating action eliminates block-cracking due to shock and jerky movements. Three specially designed cams and one cam segment permits the machine to operate smoothly at maximum speed. Blocks are deposited on the pallet chain so gently that block-cracking is virtually eliminated. The performance of this equipment has been thoroughly field-tested. For full details, write to: Bergen Machine & Tool Co., Inc., 189 Franklin Avenue, Nutley 10, N. J.

Enter D44 on Inquiry Card

Dealers and Builders Like Dur-O-Wal Package

Dur-O-wal end wraps save time for dealers and contractors in handling, storing and taking inventory. Heavy corrugated cardboard banded



with steel strapping keeps bundles neat and tight. Two-color imprinting clearly specifies, at a glance, type and size of reinforcement. Each bundle contains 500 lineal feet of Dur-O-wal in convenient 10-foot lengths. For additional information about this popular masonry wall reinforcement, write Dur-O-wal, Dept. N39-2, P. O. Box 89, Cedar Rapids, Iowa.

Enter D45 on Inquiry Card

New Booklet Tells How to Grind Concrete

Stow Manufacturing Co., 276 Shear St., Binghamton, N. Y., has just put out a new 4-page illustrated Bulletin No. 5727 on the subject of grinding concrete. This bulletin gives complete information on the proper accessories and speeds for both wet rubbing and dry grinding. The proper equipment for finishing hardened concrete walls is shown as well as for finishing concrete floors and ceilings.

Enter D46 on Inquiry Card

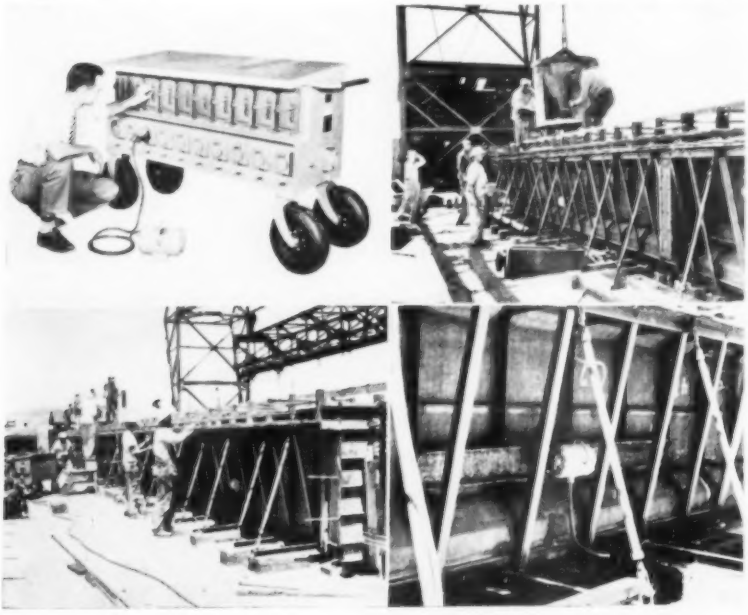
Cleveland Vibrator Develops New Assembly to Make Prestressed Concrete Members

The Cleveland Vibrator Company, 2828 Clinton Ave., Cleveland 13, Ohio, has introduced a portable package vibrator control system for the prestressed concrete industry. The package consists of ten Cleveland RC-30 portable electric vibrators, with mounting brackets, and a portable mounted control panel center for all vibrator control. All ten vibrators are plugged into the portable control panel, which is supplied by an outside power line.

The individual vibrators, which are secured to the form with two bolts, can be mounted and unmounted in minutes. Mounting brackets are welded to the forms and the vibrators are easily slipped in and out. The combination of portable external vibrators and a control buggy, gives maximum flexibility. Vibrators can be shifted from form to form rapidly and easily.

The installation shown here is at Ben C. Gerwick, Inc., San Francisco, California. The vibrators, five to a side, are being used on 80′ beam forms. The package system has been successfully operating here for over a year. The vibrators are totally-enclosed providing protection for rough usage. The RC-30 is light in weight, 43 pounds, and will develop up to 1100 pounds of impact at 3600 vibrations per minute. Smaller and larger electric vibrators are available for prestressed concrete applications.

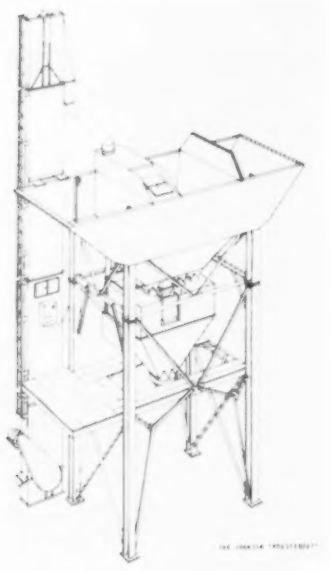
Enter D47 on Inquiry Card



- Upper left — Close-up of control buggy. Main power line is brought in on right end, master switch is right above plug.
- Upper right — Concrete being poured into forms equipped with Cleveland Vibrator package system.
- Lower left — Control buggy is at extreme left. One of the ten RC-30 vibrators can be seen on the side of the form.
- Lower right — Close-up shows mounting detail of RC-30 vibrator on form. Vibrator is easily removed by unloosening the two bolts seen immediately behind the vibrator.

New Johnson Portable Transit Mix Plant

The Johnson "Roustabout", a portable transit mix plant, that has been standardized for quick delivery, is now in production at C. S. Johnson Co., Champaign, Ill., its Pacific Coast branch at Stockton, Calif., and Koehring-Waterous, Brantford, Ont., Canada. Quickly disassembled into 9 foot maximum width sections, the new type plant can be delivered to a different job site by truck. Easy, fast erection prevents costly production delays.



Three aggregate compartments with a 38 cubic yard total heaped capacity and one 60 barrel cement compartment are a part of the "Roustabout". Low height, plus wide top openings of the aggregate compartments offer easy charging by clamshell cranes. Bin shell is all-welded to simplify erection. Air for cement aeration, supplied by a built-in 3/4 hp. air compressor, is introduced through built-in fittings and plug-in connections.

A manually operated high speed Johnson Concentric Batcher weighs cement on a scale separate from the aggregate scale. As a result, the plant owner can comply with rigid mix specifications. Cement is discharged within the aggregates for minimum dusting and maximum pre-mixing. The 180 barrel per hour cement elevator has a 3 hp. gear-motor with roller chain drive. A boot hopper handles either bagged cement or cement delivered by rear-discharge trucks. Elevator shafts have sealed, self-aligning ball bearings.

An electric panel board is installed with plug-in connections to motors. Steel floor framing is furnished for the operating floor. Access to the operating floor and top of bin is afforded by a ladder on the cement elevator. Complete specifications and other information on the "Roustabout" can be obtained by visiting your nearest C. S. Johnson distributor or writing directly to C. S. Johnson Co., Champaign, Ill., its Pacific Coast branch at Stockton, Calif. or Koehring-Waterous, Brantford, Ont., Canada.

Enter D48 on Inquiry Card

Truck Cleaning Time Halved by Aquablast

A problem long associated with the ready-mix concrete business is being solved by a Lansing, Mich. manufacturer, the John Bean Division of Food Machinery & Chemical Corp. The problem was the time-consuming job of cleaning the big trucks after delivery of their loads.

John Bean's Aquablast washer has cut truck cleaning time in some cases as much as 66 per cent. The Aquablaster applies a high pressure spray of 600 psi to the truck and easily removes cement sludge which formerly required brushes and scrapers. The old method was not only time-consuming but frequently damaged truck finishes.

At Ray Sablain Inc. of Lansing, a savings in cleaning time of four hours per truck per week was realized. Savings were computed at time-and-a-half because truck cleaning is normally done after hours. This savings in labor alone paid for this high pressure cleaning unit in seven weeks. And this effective cleaning job has resulted in less wear and reduced maintenance on moving parts. The trucks, after cleaning, are covered with a mixture of 10 percent paraffin oil and number 3 fuel oil which is applied with a small John Bean sprayer. This protective shield guards against concrete hardening to the metal surface.

And in San Jose, Calif. the firm of Borcher Bros. has gone one step further. It has installed racks which enable one man working 5 or 6 hours a day to clean 22 trucks. This saved the organization $25.30 a day or $7,000 a year over the cleaning system previously used. In addition, the high pressure washer reduced water consumption for cleaning purposes by 50 to 60 per cent. Borcher figures that truck wear is further reduced 5 per cent by the more efficient high pressure Aquablasting method.

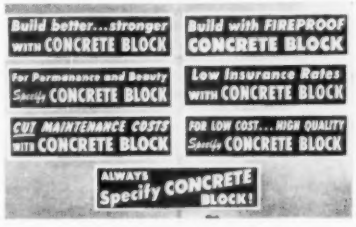
The speedy, thorough cleaning made possible by the Aquablast washer is saving the industry thousands of dollars annually in clean-up costs. Many leading construction equipment operators are successfully cleaning their pavers, crawler tractors, graders and shovels with the John Bean unit.

For further information concerning the Aquablast cleaning unit, write Industrial Sales Dept., John Bean Division, Food Machinery & Chemical Corp., Lansing 4, Michigan.

Enter D49 on Inquiry Card

Novel Block Promotion Offered by Columbia

Bumper strips advertising and promoting the advantages provided by concrete block as a building material



have been developed by Columbia Machine, 107 S. Grand Ave., Vancouver, Wash., manufacturers and distributors of concrete block making equipment.

These colorful green, white and fire-orange fluorescent, 4 x 15-inch bumper strips are silk screened on pressure sensitive paper and are available in seven different selling messages. Firms and individuals in the concrete block industry may order any quantity from Columbia Machine, who offers them to the trade on a cost basis.

Enter D50 on Inquiry Card

Toledo Scale Offers New Concrete Batching System

A new concrete batching system with Remocon controls is announced by Toledo Scale Company, Telegraph Road, Toledo 1, Ohio. This new system is designed for full and continual control of concrete quality with savings in material and time. Remocon controls provide for scale cutoffs to be remotely adjusted to any desired weight by the simple turning of a Remocon knob on the control panel. Moisture compensation, an essential element of the Toledo Scientific Concrete Process, can also be accomplished remotely. No manual adjustment at the scale itself is required.

A Remocon knob is provided on the control panel for each batch ingredient. To set up a formula on the panel the operator has only to adjust the knobs to correspond to the ingredient weights of the batch. The systems is designed so that two batch mixes can be preset on the panel with a knob to select between them. A yardage selector, graduated in increments of ¼ cubic yard, is located on the panel to enable the operator to change the batch quantity without resetting the weights of individual batch ingredients.

The principle on which the Remocon control operates is matching a potentiometer installed upon the dial spindle against the setting of a potentiometer connected to the Remocon knob on the control panel. Upon the electrical balancing of the two members of the system, one on the scale and one on the control panel, the feeder being control led is automatically stopped. This electrical balancing takes place when the dial spindle rotates as the material is fed to the scale.

Provision is made for a compensation or "preact" control which will permit cutoff to occur somewhat in advance of the prescribed weight in order to compensate for the falling column of material between the feeder and the weigh hopper. This device in conjunction with a two-speed feeder control (dribble feed) provides for maximum accuracy.

This new Toledo system provides a positive solution to the problem of compensating for moisture present in aggregates. After the operator determines the moisture content of each aggregate, he places this figure on the "percentage of moisture" knob provided on the control panel for each of these ingredients. The system then automatically increases the specified batch weight of each aggregate by its percentage of moisture. The weight of aggregate actually delivered then consists of an amount equal to the specified batch weight of the ingredient plus a quantity of water. This quantity of water is automatically subtracted from the specified batch weight of water set up on the Remocon knob, controlling the weight of water. Therefore the quantity of moisture present in all aggregates plus the weight of water added by the system equals the specified weight of water called for in the mix design.

At the weighing point the system consists of Toledo Suspension Hopper Scales. These scales, featuring the time-tested Toledo double pendulum mechanism, assure positive batching accuracy.

Recording devices either at the scale, or remotely located may be used with the system to maintain an accurate record of the weights of batch ingredients. A graphic-type recorder or Printweigh can be used to provide this information or the scale may be equipped with a Toledo Direct Digital Selector to make possible remote recording by office machines such as the electric adding machine or typewriter.

Enter D51 on Inquiry Card

The Why and How of Prestressed Concrete

Heltzel Steel Form & Iron Co., 1750 S. E. Thomas Road, Warren, Ohio, has recently published a new booklet, "The Why and How of Prestressed Concrete", which tells a very basic, clear story of what prestressing is and what it does.

The booklet also includes a very fine drawing illustrating the layout of Heltzel's "packaged" prestressed concrete plant and a description of Heltzel's "feasibility survey" service which is available at relatively low cost to anyone considering entrance into the prestressing business.

Enter D52 on Inquiry Card

New Way to Remove Hardened Concrete

Morgen Cleaner, a chemical compound that removes mortar and concrete from equipment and masonry without harm to skin or equipment, is being introduced nationally by Morgen Manufacturing Company, Yankton, South Dakota.

While it was originated for safely cleaning up masonry work, Morgen Cleaner has been found equally effective for removing hardened concrete and mortar from tools, forms, hardware, cranes, buckets, conveyors and concrete mixers. No special application equipment is required.

Morgen Cleaner is so safe it is shipped in ordinary 30 and 55-gallon metal drums instead of carboys. One-gallon and five-gallon sizes come in break-proof plastic bags packed in corrugated cartons. A spout in the bag and finger-grip perforations in the cartons make the cleaner easy to pour.

Enter D53 on Inquiry Card

New Dial Scale Catalog Available from Howe

A new illustrated catalog showing many different types of dial scales has just been released by The Howe Scale Company, Rutland, Vermont.

This new booklet shows scales for a wide cross-section of industry, together with related accessories. Listed are specifications including dial graduations, capacity, platform dimensions, and other key facts. Copies of the dial scale booklet are available on request.

Enter D54 on Inquiry Card

Prestressed Job Stories Told in M-B Booklet

Construction stories of 16 outstanding prestressed concrete projects in this country and abroad illustrate the almost unlimited application of prestressed concrete. Photographs and job stories clearly cite the role played by Pozzolith in achieving the concrete qualities required for prestressed work. A prestressed lift slab, 120 ft. prestressed bridge girders, and a 2-million gallon prestressed water tank are some of the outstanding projects covered. Both pretensioned and post-tensioned projects are featured in this new 20-page book. Available from The Master Builders Co., 7016 Euclid Ave., Cleveland 3, Ohio.

Enter D55 on Inquiry Card

Westinghouse Mixers Shown in New Booklet

The 1958 line of Westinghouse Transit Mixers is covered in a new catalog announced by the Westinghouse Transit Mixer Division, LeTourneau-Westinghouse Company, Indianapolis, Indiana.

Several new features are shown including the all-gear-driven truck engine drive for drum recently announced by Westinghouse and a new air-operated control in the truck cab which enables the operator to remain in the cab and start and stop the concrete discharge on signal from the customer. This feature is said to be a time saver on curb and gutter work and other jobs where the mixer must be moved several times before a complete load is discharged. Highly illustrated, the catalog describes all of the mechanical and operating features of Westinghouse mixers which are available in 5, 5½, 6 and 7 yd. TMMB mixer ratings.

Enter D56 on Inquiry Card

Improvements Announced on Kent Block Machines

Kent Machine Co., 113 Portage Trail, Cuyahoga Falls, Ohio, has just issued a new folder which describes the latest improvements that have been made on the KenTwin block machine.

The KenTwin is a two-at-a-time machine, companion to the Ken-Three, which as its name indicates, is a three-at-a-time unit. The KenTwin has a new magnetic spade offbearer and an improved front pallet feeder. Other features include quickly interchangeable mold boxes, hydraulic press head and agitated feed drawer.

Enter D57 on Inquiry Card

Leschen Now Supplying P. C. Concrete Strand

Leschen Wire Rope Division, H. K. Porter Company, Inc., 2727 Hamilton Ave., St. Louis 12, Mo., well-known for over a century as the manufacturer of Red-Strand Wire Rope, is now producing high strength, stress-relieved 7-wire strand for prestressed concrete to help supply the needs of that rapidly expanding industry. The new equipment and machinery required for prestress strand has been installed at the Leschen plant in conjunction with their completely new wire mill which has recently been put into operation.

A product that meets or exceeds ASTM and all state specifications is assured by the latest techniques of quality control both in the production of the wire and the manufacture and stress-relieving of the strand.

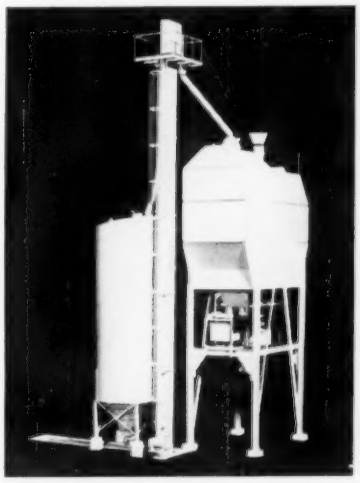
The Leschen mill at St. Louis is well located to provide prompt shipment to prestressed concrete plants throughout the country, but more particularly to the mid-west and south.

Enter D58 on Inquiry Card

New Truck Mixer Loading Plant by Blaw-Knox

A new Uni-Rect truck mixer loading plant, designed for maximum capacity and portability, is now available from Blaw-Knox Company's Construction Equipment Division, Mattoon, Ill. The Model 200 — 222 plant features: factory assembled units that provide ample storage and fast, low cost erection; pre-assembled and tested batching equipment; bin compartmentation that makes possible a wide and readily available variety of mix designs.

The seven-part, 200-ton capacity plant includes: 3-cubic-yard automatic batching unit; four 37-ton self cleaning aggregate compartments; two 150-barrel water tight cement compartments; two 300-barrel auxiliary cement compartments, and a cement elevator rated at 75 tph of cement having a density of 55 lb. per cu. ft. The plant also features a choice of manual, power assist, or



full automatic batching systems; maximum drive-through clearance; ¼-inch hopper plates for long life, and push-button controlled auto-positioning aggregate turnhead and air-operated flop gates.

Copies of Bulletin 2631, describing this new loading plant, are available on request from Blaw-Knox Company, P.O. Box 1198, Pittsburgh 30, Pa.

Enter D59 on Inquiry Card

How to Make Solutions of Calcium Chloride

An interesting four-page brochure, "How to Prepare Standard Calcium Chloride Solution", either for large or small quantity usage is available from Calcium Chloride Institute, 909 Ring Bldg., Washington, D.C. Prepared especially for ready mixed concrete producers, it also contains a chart on recommended gallons of standard solution per batch, depending on the percentage of calcium chloride desired and cement per cubic yard of concrete.

Noting the use of automatic dispensers, the brochure also contains information on commercial and shop-made automatic dispensers which have proved successful in field practice. A schematic is included for a shop-made unit which can be made easily.

Enter D60 on Inquiry Card

New Challenge Mixers Now in Full Production

Cook Bros. Equipment Co., 3334 San Fernando Road, Los Angeles 65, Calif., exclusive world wide distributor for Challenge Pacemaker truck mixers, recently announced that the Challenge factory is now in full production on 1958 models.

The 1958 Challenge truck mixer has a new more attractive appearance and has many new operational features that add years to the service life of the mixer and also help the ready mixed concrete operator render a better service. Features of the 1958 Challenge, include a new water tank location which gives the driver full vision to the rear of the mixer. A new, recessed control panel is well protected and carries complete mixer operating instructions. A new "Uni lever" gives the driver complete operating control of the mixer from either the rear or truck cab. One lever starts, stops and reverses the drum, changes gear range and regulates the speed of the engine. New, hard-faced reinforcing flanges on mixing blades add extra years of service life. And, an automatic wash-down system helps keep the discharge assembly clean.

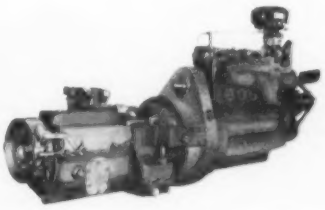
The 1958 Challenge Pacemaker truck mixer is made in 17 different models. Front mounted separate engine models are made in 4, 5, 5½, 6, 6½, 7 and 8½ cubic yard sizes. Rear mounted side engine models are made in 5½, 6, 6½ and 7 cubic yard sizes. Engine-take-off models are made in 5½, 6, 6½, 7 and 8½ cubic yard sizes. The power-take-off model is made in 4 cubic yard size. All Challenge Pacemaker truck mixers are manufactured and rated in accordance with the standards for truck mixers specified by the NRMCA and TMMB. A new, 20-page color catalog picturing and describing the 1958 line of Pacemaker truck mixers is available on request from Cook Bros.

Enter D61 on Inquiry Card

Flywheel Power Take-off for Ready Mixed Trucks

Crane Carrier Corporation, P.O. Box 5008, Tulsa, Okla., has introduced a new Flywheel Power-Take-Off unit as an integral component of the CCC Mixermaster Model M650T, a vehicle specifically engineered for transporting transit concrete mixers.

With Flywheel-Power-Take-Off, power to operate the transit mixer is taken for the first time directly from the flywheel assembly of the vehicle upon which the mixer is mounted. This revolutionary development for ready-mix concrete operations features a "power package" consisting of the new Flywheel Power-Take-Off, torque converter, hydraulic clutch, and synchronized transmission, in three of the Model M650T Mixermasters. This power package provides true integration of mixer with



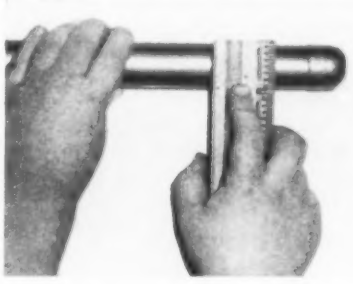
carrier, minimizes driver fatique, increases payload, and greatly lengthens the life of the equipment.

It gives direct full torque power supply to the mixer, with the economy and dependability of one engine operation. It eliminates the costly and vulnerable linkage necessary when mixer power is taken from the front of the vehicle's engine. The simplicity and location of the assembly makes inspection easy, reduces the possibility of damage, and minimizes maintenance.

Enter D62 on Inquiry Card

New Small Vibrator Head for Prestressed Placing

Stow Manufacturing Co., 443 State St., Binghamton, N. Y., has just put on the market a little 7/8 inch diameter Model 880 vibrator head which is run by a 5/16 size flexible shaft connected to the stand-



ard Stow CU ½ hp. Midget Vibrator. This little vibrator head is ideal for extremely narrow forms such as those used on much of the precast and prestressed concrete being poured these days. The Model 880 vibrator head is 10 inches long, and really packs a wallop; it operates at 12,000 vibrations per minute. It sells for $26.00, making replacement costs low.

Enter D63 on Inquiry Card

Marietta Combines Material Storage, Handling for One-Man Ready Mix Operation

By using a combination of its own materials storage bins coupled with a modern materials-handling system, The Marietta Concrete Corporation, Marietta, Ohio, has been able to reduce the operation of its 100-ton ready-mix plant to a one-man job, according to R. Neil Christy, executive vice president. This has resulted in great savings in the costs of material handling and labor to operate the plant.

Aggregates are delivered to the Marietta plant by truck and when the materials are dumped in the hopper the conveyor system is started by the batch man who fills the respective bins in the batch plant. When these bins are filled the remaining material is conveyed to the four Marietta reserve storage bins which have a combined capacity of 1000 tons. Then, when a compartment in the steel batch plant is about empty, all that is necessary is for the operator to convey the materials from the reserve storage bins to the batch plant again.

Bulk cement is also delivered to the Marietta plant by truck, and the delivery man starts the bulk cement elevator when he has made the proper connections from the cement tank to the unloading screw. The plant has a reserve storage capacity of 500 barrels of bulk cement.

Primary difference between the Marietta Ready-Mix plant and most other batch plants, is that these plants are generally supplied with material by a crane from ground stockpiles around the plant. Through the use of storage bins, Marietta is able to keep the materials clean until needed and the aggregates and cement are always immediately available for use by merely opening the discharge gate onto the reclaiming conveyor. The storage bins used at the Marietta Ready-Mix plant were among the first industrial bins ever produced by Marietta 35 years ago, and were originally used for coal storage.

Marietta specializes in the design and construction of industrial storage bins for all types of materials storage, and they have been producing precast concrete stave storage systems since 1916. This long, practical experience plus constant research, has enabled Marietta to pioneer many new developments

Enter D64 on Inquiry Card

CLASSIFIED ADS

$10.00 per column inch. Closing date for classified advertising copy is 15th of preceding month.

FOR SALE

Used autoclaves suitable for pressure curing concrete block. 7 ft. by 130 ft., 5/8 in. shell, $10,-500., F.O.B. loaded on flat cars with saddles.

E. G. JOHNSTON
1816 19th Ave., South Maywood, Ill.
Phone: Fillmore 4-5298

PLAIN PALLETS FOR SALE

Approximately 800 — 18½ x 26 x ¼ plain pallets $1.25 ea.
Used on Besser Vibrapac, cleaned, oiled, and stored after last cleaning. F.O.B. Flint, Michigan.

GENESEE CEMENT PRODUCTS, INC.
G-3478 South Dort Highway
Flint 7, Michigan.

FOR SALE

Fork and platform power lift trucks, used and guaranteed factory rebuilt.

Erickson Power Lift Trucks, Inc.

St. Anthony Blvd. & University Ave., N. E.
MINNEAPOLIS 18, MINNESOTA
PHONE—STERLING 1-9508

FOR SALE OR EXCHANGE

One Bag Dunn Mixer, and one 4,000 lb. Hyster Forklift. Exchange for Columbia Brick Mold, Block Splitter or Lintel Machine.

QUALITY CONCRETE PRODUCTS
Delta, Missouri

WANTED

Transmission for 1952 Ransome 4½ cu. yd. mixer and for a used 4½ cu. yd. mixer.

HORNING BUILDERS SUPPLY, Inc.
113-115 Lake Street, Kent, Ohio.
PHONE: Or 3-5881

FOR SALE

Stearns #9 block machine and or cored steel pallets 4", 6", 8", and 12"; attachments and molds. Reasonable.

CALSTONE COMPANY
970 Commercial St., San Carlos, California.

GRINDER

Nine foot dry-pan grinder with roller bearing. Sixty yard per hour capacity. Ty-Rock Model F300. Screen, plate feeder, & hopper.

THE GEIST BUILDERS SUPPLY COMPANY
3540 Ridge Road, Cleveland 2, Ohio
Phone: WOodbine 1-7500

WANTED

Investor desires to purchase or lease Transit Mix Concrete and Sand & Gravel operations in Texas, Oklahoma, New Mexico, and Arizona. Plants must be going concerns with growth potential. Replies will be held in strictest confidence. Reply to:

O. B. McKOWN, Jr.
P.O. Box 4266, Austin, Texas.

FOR SALE

Four sheet steel lintel molds, makes 3½x7⅝ any length to 11' — 4" eased bottom edges, condition as new, two dividers per mold included, makes 42' — 8" per cast. Price $240.00.

GEORGE REIBER
1093 Urana Ave., Columbus 24, Ohio

MANAGER OF OPERATIONS

Plant Manager with twelve years experience. Capable of taking over costs, production, maintenance, scheduling, etc. Excellent references.

Address: Box A-36, care CONCRETE
400 W. Madison St., Chicago 6, Ill.

WANTED

To rent 5½ to 6½ yard Ready Mix Truck from May to November. Must be in good condition.

CONNEAUT CONCRETE PRODUCTS CO.

Conneaut, Ohio Phone: 41-081

FOR SALE

- **1 — Erickson F-5 Fork Truck, sideshifter and forks "as is" or rebuilt.**
- **1 — Used Champion drain tile machine 4", 6", and 8".**
- **2 — Stearns Model 15s, pallet returns, offbearing hoists, 8".**
- **1 — Besser Vibrapac — cheap.**

PHIL ORAM
4205 W. 66th St., Prairie Village 15, Kansas

OUTSTANDING SALES OPPORTUNITY

Due to expansion of line and revision of territories, progressive world-wide distributor and manufacturer of concrete block making machines and complete plant equipment offers excellent opportunity for representatives in choice, protected territories. Profitable commission arrangement on new and repeat business. Write today, giving full resume of personal and sales background. All replies confidential.

COLUMBIA MACHINE, INC.
VANCOUVER, WASHINGTON

FOR SALE

Stearns Joltcrete #7 — 4", 8", and 12" mold boxes. 2,000 — 4" pallets. 2,000 — 8" pallets. 1,000 — 12" pallets. 12 cu. ft. mixer. 14 ft. belt conveyor. 32 steel racks. One hand lift truck rack mover. This machine used only part time since new, and it is in very good condition. Sale includes all motors and switches, also many new and used spare parts. Priced for quick sale: $3,500.00

IOWA CONCRETE PRODUCTS CO.
Maquoketa, Iowa

COLORS

For Cement and Concrete

COLOR YOUR CONCRETE WITH LANSCO CEMENT COLORS, available in 40 ATTRACTIVE shades. Suitable for all types of concrete products. Write for our new color card, copy of "Suggestions For Using Cement Colors," and for free samples and price list.

Manufactured by:

LANDERS-SEGAL COLOR CO.
76 Delavan St. • Brooklyn 31, N.Y.

HELP WANTED MANUFACTURER'S AGENT

Opportunity for aggressive representative seeking an additional, profitable line. Man wanted to sell automatic batch electronical equipment and admixtures. Should have connections in ready-mix and concrete block field. Permissible to handle non-conflicting lines. Here's a wonderful opportunity to make more money in a fast growing field of automation and electronics. No engineering background necessary. We have choice territories available. Be the first to write—today!

Address: Box A-32, Care CONCRETE
400 W. Madison St., Chicago 6, Ill.

E. L. CONWELL & CO.

Established 1894

ENGINEERS • CHEMISTS

INSPECTORS

Cement, Chemical and Physical Laboratories
Tests of Cement, Concrete, Sand, Steel, Cement Block, Cement Brick.
Chemical Analyses of All Commercial Products. Complete Technical Supervision of Central Mixed Concrete Plants.

2024 ARCH ST. • PHILADELPHIA, PA.

FOR SALE OR LEASE

Modern concrete products plant, block and tile, established business. Many other related items. Equipment optional.

Address: Box A-34, care CONCRETE 400 W. Madison St. Chicago 6, Ill.

FOR SALE

One 30 cu. ft. batch mixer with 20 H.P. motor. Fifteen-hundred 18" x 18" steel pallets. Forty-four 60-block capacity racks.

ETZEL CONCRETE PRODUCTS

Price, Utah Phone: MEdford 7-1703

FOR SALE

One Kelly block machine with 8" mold, 1,600 steel pallets, twenty-four 60-block steel racks. One Kent continuous mixer, 24 ft. conveyor, 5 Hp. compressor, No. 1, 2, 3, 4 batter block molds with 800 steel pallets. This machine will make 1,500 blocks per day. All this equipment for $2,000.00

MASSE BLOCK COMPANY
South Attebero, Mass. PHONE: So 1-7488

FOR SALE

Cored steel pallets.
Plain steel pallets.
All sizes — New.

BLEIM STEEL COMPANY
3001 South Avenue Toledo 9, Ohio
Phone: Walbridge 3496

PLAIN PALLET CLEANING

We truck our machine to your plant and supervise entire cleaning and planing off of pallet residue. No need to shut down as we will keep up with production.

EDWARD A. LOBSTEIN
5363 Seminole Ave. Detroit 13, Mich.
Phone: Walnut 2-1135

WANTED TO BUY

Used Besser Vibrapac. State age, model serial number, condition, equipment included and price.

Address: Box A-37, Care CONCRETE 400 W. Madison St., Chicago 6, Ill.

INVENTORS AND MACHINE DESIGNERS

National manufacturer is desirous of obtaining manufacturing and sales rights on any equipment or improvements used in concrete products plants on a royalty or outright purchase basis. Patents not essential. Protection guaranteed.

Address: Box E-4, care CONCRETE
400 W. Madison St. Chicago 6, Ill.

PALLET CLEANING

We have the most modern machines in use and can do your pallet cleaning to meet your work schedule. There is no extra charge for transporting our machines as they move on our own trucks.

EASTERN PALLET CLEANING, INC.
2424 95th Street North Bergen, New Jersey
Phone: Union 9-0260

SWAP — SELL — BUY
BLOCK MACHINES

Steams #7 & 9 Joltcretes (Joltcrete owners at this price buy one for spare parts.)	$ 500.00	each
Mold Boxes #7 & 9	150.00	each
Truckman Platform Lift 4000 lbs. capacity	495.00	
1 Y-40 Truckman Fork-Lift 4000 lb. capacity, 1956 Model	3500.00	
2 Air Offbearers Steams #7 & 9	250.00	each
2 Hand Lift Trucks	175.00	each
1 Lithibar 2-Block Machine complete with 1000 plain steel pallets 18" x 22"	4900.00	
1 Steams 28 cu. ft. Mixer Practically new	1500.00	
12 cu. ft. Steams Mixer and motor. Excellent condition	500.00	
100—Racks for cored steel pallets	10.00	each
100,000 pressed steel pallets in stock (Send tracing or sample for quotation).		

WRITE • WIRE • PHONE
Mr. McCaughey

Send in list of equipment you need. If we don't have it in stock, we usually know where we can find it at a bargain.

GENERAL ENGINES CO., INC.
Route 130 Thorofare, N.J.
PHONE: Tilden 5-5400

SMITHKO CEMENT COLORS

- **The Standard of Comparison for Nearly Forty Years**
- **65 Shades to Choose From Including Many New Colors**

Send For Latest COLOR CARD, Samples, Technical Brochure, and Quotations.

SMITH CHEMICAL & COLOR CO.
53-57 John St., Brooklyn 1, N.Y.

SELL LINTELS TOO WITH A SUPERIOR "82"!

• ADVANTAGES •

- **Make "high-strength" wet-mix quality lintels. (same mix used in bridges, prestress, etc.)**
- **Pour 82 feet of lintel all at once.**
- **Make all lengths of lintel to 10'-4".**
- **Make lintels 3⅝" wide, 5⅛" wide, and 7⅝" wide.**
- **Your cost only 25c/per foot and up.**
- **Larger and longer models available.**
- **Sell lintels with your other products.**
- **Sell lintels retail and wholesale.**
- **You'll like our price too!**

Write For Details Today **SUPERIOR CONCRETE MCHY. CO. 1583 S. High St., Columbus 7, O.**

Precast Specialties Mean Extra Profits **!**

GET SET FOR 1958 ORDERS

Mail Order Metal Molds

EASY TO POUR & STRIP • LONG LASTING

Choose from 100 Items:

PARK BENCH

BIKE BLOCK

- **STEPPING STONES**
- **PARKING BLOCKS**
- **POOL COPING**
- **CHIMNEY CAPS**
- **BASEMENT SILLS**
- **WINDOW WELLS**
- **WALL COPING AND CAPS**
- **BOTTLE GAS BASE**
- **DISTRIBUTION BOXES**
- **WINDOW SILLS**
- **TRASH BURNER**
- **STEP TREADS**
- **SPLASH BLOCK**
- **FENCE POSTS**
- **MAIL BOX POSTS**
- **LAWN TRIMS**
- **PICNIC TABLES**
- **LINTELS**
- **FEEDING BOWLS**
- **HIGHWAY DIVIDERS**

SPECIAL MOLDS TO YOUR SPECIFICATIONS

- **VIBRATING TABLES**
- **P. D. CONCRETE INSERTS**
- **SWISS FORM OIL**
- **DAYTON MOTORS**

Write Today for FREE Illustrated Catalog

R. L. SPILLMAN CO.

Box 534-S Station G. Columbus 7, Ohio

HOW

to get more information on products and services covered in the editorial and advertising pages of this issue . . . . . .

The reader service card facing this page is simple and easy to use. On each page of this issue containing an advertisement or advertisements there is a line at the bottom of the page referring you to this Advertisers' Index page. Ahead of each advertiser's name in the Index to the right there is a key number. If you want more information from any advertiser, simply enter his key number in one of the blank spaces on the right-hand side of the reader service card.

In the case of editorial descriptions of equipment and materials, each item has a key number below it. If you want more information about the item described, enter that key number in one of the blank spaces on the right-hand side of the reader service card. New literature items are similarly keyed.

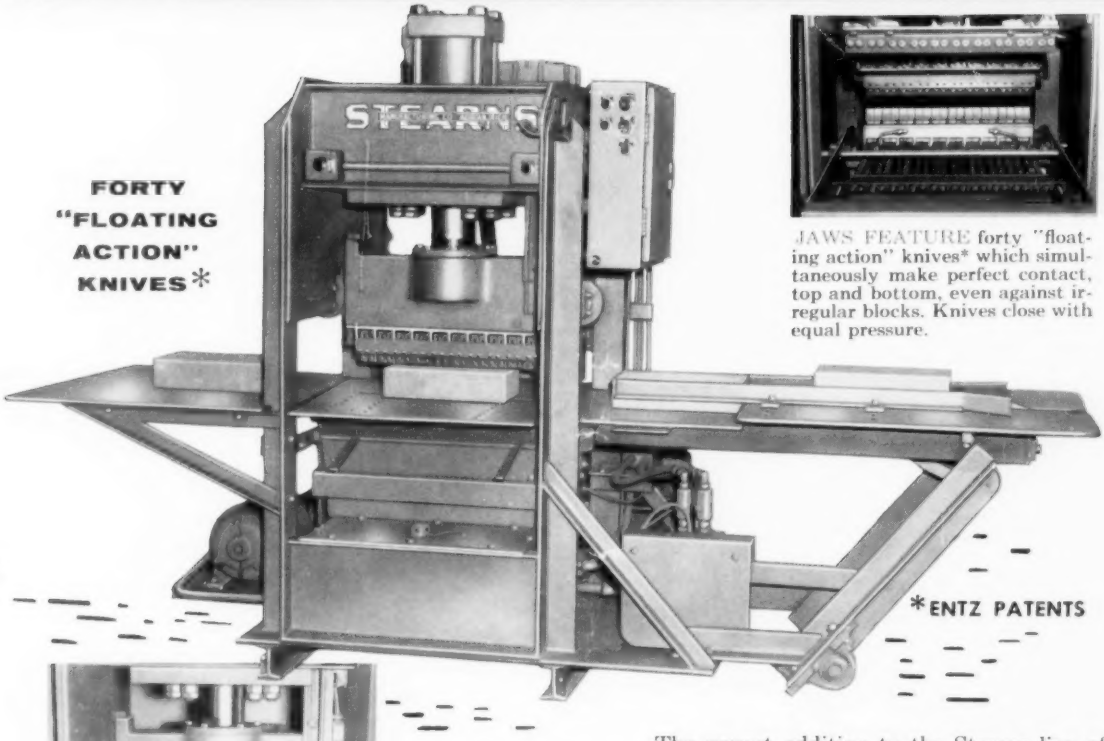
Then print in your name, title, the name of your company and complete mailing address and drop the postage-paid card in the mail. We will forward your requests to the manufacturers as promptly as possible after we receive your card.

THE BEST TIME TO MARK THE CARD IS WHILE YOU ARE READING THE ISSUE

INDEX TO ADVERTISERS

DON'T "BREAK" BLOCK ...SPLIT THEM!

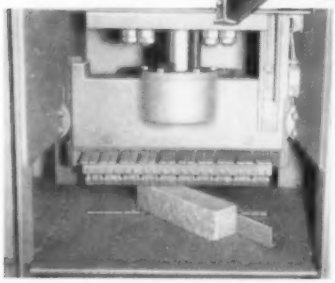
UNIFORMLY and TRULY with the *All New* STEARNS BLOCK SPLITTER



FORTY "FLOATING ACTION" KNIVES*

JAWS FEATURE forty "floating action" knives* which simultaneously make perfect contact, top and bottom, even against irregular blocks. Knives close with equal pressure.

*ENTZ PATENTS



UPPER HEAD ASSEMBLY and splitting table are guided by antifriction bearing roller guides. Block guides are easily adjusted for all diagonal and special angle cutting. Operator works in complete safety at all times.

The newest addition to the Stearns line of concrete products plant equipment is a block splitter. It is engineered with a revolutionary principle of forty "floating action" knives which simultaneously make perfect contact, top and bottom, even against irregular block, then close with equal pressure to produce true cut blocks of uniform size. This exclusive principle practically eliminates culls, as the blocks are split by equalized pressure and not struck in the conventional manner.

Completely hydraulic in operation, solenoid actuated valves initiate each of the five separate operations in sequence to perform a complete automatic splitting cycle. The rate of production is automatically controlled with a range of from six to twelve complete splitting cycles per minute for straight line cuts, and will accommodate block up to 8 in. in height and 24 in. in length. Easily set for semi-automatic operation for all angle and special cutting. Write today for full particulars and illustrated folder.

"for Natural Beauty"

STEARNS

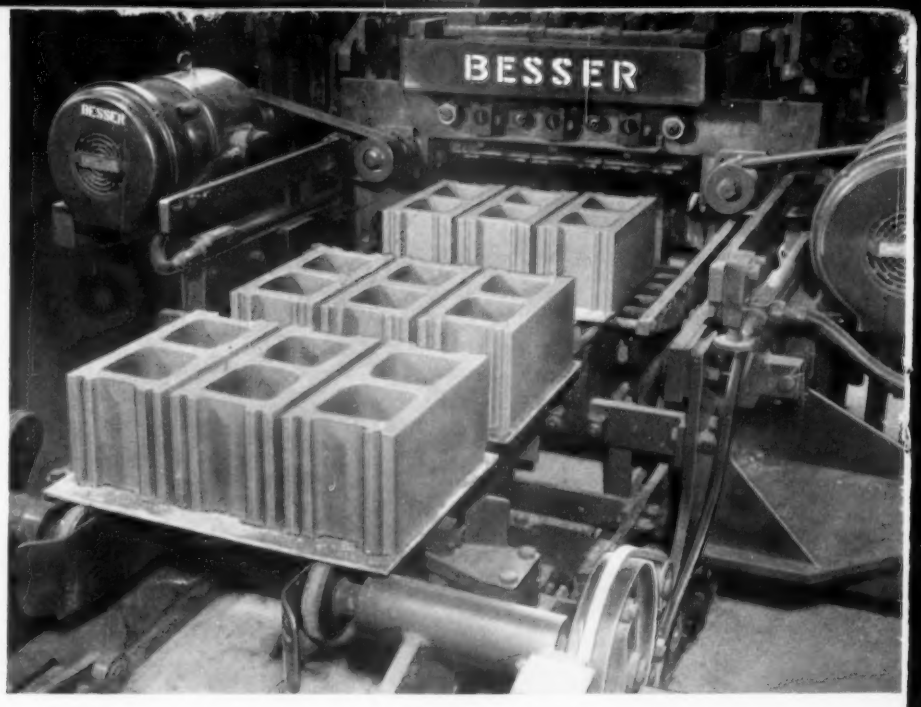
MANUFACTURING COMPANY · INC.

ADRIAN, MICHIGAN, U.S.A.

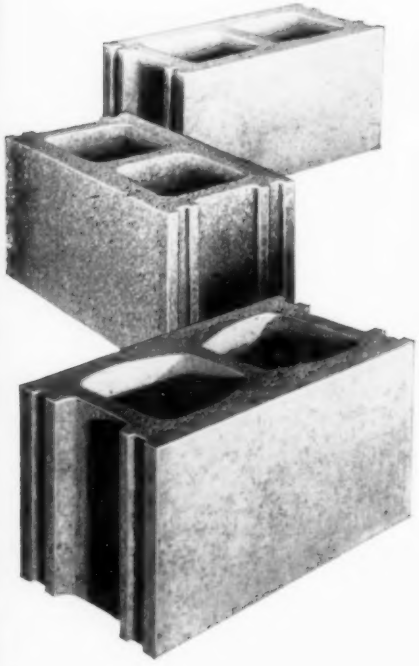
COMPLETE CONCRETE PRODUCTS PLANT EQUIPMENT

For more information use postcard facing page 48.

Like peas in a pod...



All block made on the Besser Vibrapac are UNIFORM!



• When you push the starting button of a Vibrapac machine, you have the assurance that all block produced have uniform characteristics. *Like peas in a pod*, all units are identically the same.

The Besser Automatic Feed Control compensates for all conditions of feed—too much, too little, too wet, too dry. Feeding by guess is eliminated. The amount of feed is automatically regulated between each forward motion of the feed box, in ⅛" increments, up or down. That means each block will have an unvarying modular height, uniform texture and desired density.

For beauty, uniformity and long lasting qualities, Vibrapac Block are "tops" in the industry . . . the preferred building material for all types of structures. Write for literature.

BESSER COMPANY

BOX 127, ALPENA, MICHIGAN, U. S. A.

FIRST IN CONCRETE BLOCK MACHINES

BEAUTY, PLUS PERMANENCE

Examine a Vibrapac Block wall closely. Note the uniform texture, the clean-cut permanent edges and smart tooling of the mortar joints. A Vibrapac Block wall adds beauty and utility to conventional architecture.

BESSER

VIBRAPAC

A 6-108-1PBC